

# blue star

## Tile adhesive for walls

### DESCRIPTION

Non-slip ready-mixed tile adhesive for walls.

### Use for

- Fixing ceramics (up to 300x300mm), mosaics and some natural stone in dry or wet interior environments.
- For domestic areas including showers/kitchens/bathrooms.
- Suitable for heavy duty dry areas

### Restrictions: NOT suitable for

- Exterior use or total immersion areas (e.g. swimming pools).
- Commercial showers and power showers.
- Non-porous tiles.
- Bedding depths exceeding 3mm.

### PRODUCT INFORMATION

**Composition:** Acrylic based organic dispersion

**Colour:** White

**Type/Classification:** Exceeds BS EN 12004 D1TE – Dispersion (ready-to-use), Normal Characteristics, Reduced Slip, Extended Open-Time

**Pack size:** 10ltr, 5ltr and 1ltr

### Key features:

- Ready-to-use
- Easy to apply
- Excellent non-slip (no battens required)
- High Bond strength
- High grab, improved strength

**Grout after:** 24 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✗
Interior	✓	Exterior	✗
Dry	✓	Wet	✓
		(1)(3)(6)	
Domestic	✓	Worktops	✓
Showers		(1)	
(a)(1)(3)(6)			
Communal Dry	✓	Bathrooms	✓
Areas			

### BACKGROUNDS / BASES

Rendering	✓
Clay Brick / Medium	✓
Density Concrete (2)	
Sheets & Boards (3) (4)	✓
Tile Backer Boards	✓
(5)(6)	
Plasterboard (3)	✓
Plaster (3)	✓
Glazed Tile & Brick (6)	✓
Painted Surface (6)	✓

### USAGE: Bed Thickness / Time

Bed Thickness	Open Time*	Setting Time*
3mm max	>20 mins	24 hours at 20°C

\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Area	Trowel	Coverage ^
Dry Wall	Round Notched	0.66m <sup>2</sup> /litre
Wet Wall	Thin Bed Solid Bed	0.5m <sup>2</sup> /litre

^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*

-30°C to 100°C

\*\* Cured adhesive.

(1) Tiles must be grouted using BAL EASYPOXY AG.

(2) Provided the surface is sufficiently flat.

(3) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(4) Seal back face and edges with undiluted BAL BOND SBR.

(5) Check suitability for the intended purpose with the manufacturer.

(6) Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Note:

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### *Surface regularity:*

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. It is important the surface is to SR1 (+ or – 3mm or less over a 2 meter straight edge).

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

*In domestic shower areas:* waterproof background with BAL TANK IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM. NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting with BAL EASYPOXY AG.

#### **SUITABLE SURFACES include:**

#### **Clay Brickwork/dense concrete/blockwork walling**

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1).

NOTE: Direct fixing of tiles to lightweight blockwork is NOT recommended.

#### **Cement:sand renders**

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete block walls/clay brickwork: 6 weeks
- Cement:sand rendering: 2 weeks

#### **BAL QUICKSET CEMENT: rendering**

- Rendering (bonded): 4 hours\*\*

#### **BAL BOND SBR SLURRY**

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency**

**BAL QUICKSET RENDER: 2 hours**

#### **Existing glazed ceramic tiles/glazed bricks**

Ensure existing tiles/bricks are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

#### **Fibre reinforced cement boards and lightweight tile backer boards**

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Do NOT seal or prime surfaces to be tiled.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

#### **Plywood (walls)**

##### **(internal dry areas only)**

Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup> ; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

Do NOT prime surfaces to be tiled.

#### **Plaster (finish coat only)**

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (diluted 1:1 by volume with clean water) or
- BAL BOND SBR (diluted 1:4 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

NOTE: When priming, drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

#### **Plasterboard (If required)**

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Typical weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

#### **Painted surfaces**

Remove all loose and flaking paint.

Check by applying a suitable self-adhesive tape to clean dry paint surfaces. Tear off tape after 10 mins. If paint is removed with the tape, the paint is unsound.

Remove unsound paint mechanically. Do NOT use paint strippers.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions. If fixing larger format tiles (advised up to max. 300x300mm or fixing onto a non-porous background (e.g. tiles), drying times will be extended.

For larger size tiles contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
Mosaics (up to 100x100mm tiles)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. *If fixing large (300x300mm maximum)/heavily-patterned tiles, apply additional adhesive to tile reverse (DO NOT apply over 3mm maximum).*

2. For *mosaics*: using a rubber tile float, press mosaics into adhesive and beat into required position, ensure joints between sheets match joints between mosaic tesserae (i.e. staggered).

For tiles: press tile firmly into the ribs of adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer).

4. Occasionally lift a mosaic/tile to check adhesive contact are 50% coverage for dry areas; min. 100% coverage for wet areas (i.e. When solid-bed fixing, leave no voids behind tiles).

5. Leave adequate joints between individual tiles unless self-spacing tiles used.

6. Install movement joints to BS 5385, Parts 1-5.

7. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Waiting minimum 24 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

NOTE: If tiling on an impervious background (e.g. existing tiles or primed areas) and/or fixing larger format tiles (up to 300x300mm) or porcelain tiles (up to 150x150mm), delay grouting for min. 3 days, to allow for extended setting time.

2. Fill movement joint and seal around bath/shower trays with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. However, do NOT use on sensitive surface that could react to acetic acids released during cure.

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. Available on request.

For sales and technical queries, contact:

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# board

## Non-hazardous water-resistant and easy to cut tile backerboard for walls & floors

### DESCRIPTION

Strong, durable, fire rated non-hazardous, water/mould and impact-resistant tile backer board for wall & floors.

#### Use for

- Providing a complete and easy to use BAL tiling solution.
- Easy to cut and easy to use water and mould-resistant tile backer board. Provides a stable substrate to both wall and floor.
- Suitable for dry or wet interior environments prior to fixing wall and floor tiles.
- Use to paint or wallpaper over when rooms are not to be fully tiled.

The board provides a stable substrate for most types of tile/stone and will take a maximum weight of 100kg per m<sup>2</sup> when fixed to a solid background. Is ideal in association with an approved design for:

- Heavy Duty Showers and Power Showers\*
- Wet Rooms\*
- Kitchens, bathrooms, laundry and utility rooms
- Fireplaces and open burners\*
- Boxing around pipes and bath panels
- Underfloor heating
- Swimming Pool areas\*
- Use with more than one type of finish i.e. painted and tiled areas
- Fixing accessories such as toilet roll holders, shower curtain rails, mirrors, shelves etc. (Note: heavy fixings must be screwed to the supporting wall/noggins)

*\*Further technical guidance may be required prior to the use in wet installations to ensure they are incorporated as part of an approved construction. Please contact the BAL TECHNICAL ADVISORY SERVICE for free advice.*

#### Restrictions: NOT suitable for

- Exterior use
- Swimming Pool Tank

#### PRODUCT INFORMATION

**Composition:** Magnesium oxide board, inorganic substances and alkaline resistant fibreglass mesh. Low energy manufacturing process.

**Colours:** White

**Type:** Internal use only

**Sizes:** 1200mm x 600mm

**Thickness:** Floors - 6mm and 12mm

**Walls – 12mm only**

#### Key Features:

- Simple, easy to handle, fix and with dust free cutting.
- Water-resistant.
- Hold a maximum weight limit 100kg per m<sup>2</sup>.\*
- Provides a strong and stable surface for finishes.
- Ideal for fixing most finishes including:
  - Tiles/ stone and mosaics.
  - Emulsion and oil based paints and wallpaper.
  - Plaster and render applications.
- Tested and approved to BBA
- Ideal for power showers, wet rooms.

**Tile after:** Once securely fixed and rigid, tiling can be started immediately.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✗
Dry	✓	Wet (1)(2)	✓
Swimming Pool areas (1)(3)	✓	Showers (2)(a)	✓
Internal Domestic and Commercial	✓	Steam Rooms (1)(2)(3)	✓
Worktops/ Countertops (3)	✓	Underfloor Heating	✓
Bath Panels & Tub Decks	✓		

### BACKGROUNDS / BASES

Flush Transitions to Drywall	✓
Over Timber Subfloors	✓
Over Concrete Subfloors	✓
Over Timber Floors	✓

- (1) Tiles may be grouted using BAL EASYPOXY AG.  
 (2) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
 (3) Further technical guidance may be required. Contact BAL Technical Advisory Service for further information.

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4.



## SURFACE PREPARATION

### GENERAL

Ensure surfaces to be tiled are flat, clean, sound and free from contamination.

1. Ensure any studwork is made from seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally
2. When screw fixing BAL BOARD use stainless steel/ galvanized screws and ensure no fixings protrude. For walls apply fixings at a minimum of 15mm from the edge and 20mm from the corner of the board. When fixing, start at the centre and work outwards to prevent distortion within the boards. When fixing to walls, a 6mm gap should be left above the finished floor level to allow for settling of the frame or movement. All fixings should be flush with the surface of the board.
3. When tiling using BAL cementitious based tile adhesives, prime the face (rough face) of BAL BOARD with one coat of BAL PRIME APD (Diluted 1:1 by volume with water). Allow to dry before taping the board joints. No priming required for BAL WHITE STAR PLUS.
4. When using BAL BOARD for heavy weight coverings, additional fixings/anchors should be used.
5. All board joints must be reinforced using BAL SCRIM TAPE before tiling.
6. Tiling can commence once all preparation has been completed.

### Wet Areas

In wet areas waterproof the background with BAL TANK-IT, or BAL WATERPROOFING KIT FOR SHOWERS.

Fill any voids or gaps over 1mm with suitable filler/adhesive or sealant, and allow curing.

### Falls & Drainage

The floor substrate must be laid to the correct falls as recommended in BS 5385: Part 4. Gradients between 1:80 and 1:35 are recommended Falls of 1:80 should be the minimum; gradients steeper than 1:35 might be inconvenient and even dangerous. The drainage rate of the gulley/drain must exceed the flow rate of the water source i.e. shower head.

### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

### SUITABLE SURFACES include:

#### Tongue and grooved floorboards/Existing timber sub floors

Ensure existing timber floors are flat (SR1) and (i) sufficiently rigid and stable (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) have adequate ventilation under the timber. The timber floor should be dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers etc, before priming with 2 coats of:

– BAL PRIME APD (undiluted) or

– BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry. Second coat applied at 90° to the first.

Fixing Method: Using a minimum 6mm notched trowel, apply a thin bed of BAL flexible tile adhesive to the floor such, see BAL TECHNICAL DATA SHEETS for further information on mixing and application. NOTE: Install the BAL BOARD in a broken bond or brick pattern and screw fix boards at 300mm centres into the existing floor. Before tiling, apply one coat of BAL PRIME APD (Diluted 1:1 by volume with water) to the rough face of the BAL BOARD and allow to dry. BAL SINGLE PART FASTFLEX can be selected or BAL RAPIDSET FLEXIBLE FIBRE combined with BAL RAPID MAT uncoupling membrane can be used when fixing ceramics or stone to BAL BOARD 6mm. Alternatively, providing the floor is stable and free from deflection, BAL RAPIDSET FLEXIBLE FIBRE can be used when fixing tiles to an overlay of 12mm thick BAL BOARD. For further advice, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### Brickwork/Lightweight blockwork walling

Allow new block mortar to dry for minimum 6 weeks. There should be no evidence of damp present.

##### Fixing Method:

Screw fix the BAL BOARD into blockwork or brickwork at a maximum of 300mm centres horizontally and vertically using stainless steel galvanized screws. NOTE: install the 12mm BAL BOARD (broken bond or brick pattern). For uneven blockwork walls tile adhesive may be applied in addition to mechanical fixings. Before tiling apply one coat of BAL PRIME APD (Diluted 1:1 by volume with water) to the rough face of the BAL BOARD and allow drying. BAL RAPIDSET FLEXIBLE FIBRE can be used when fixing tiles on to BAL BOARD 12mm.

#### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks. There should be no evidence of damp present.

**Fixing Method (i):** Screw fix the BAL BOARD at 300mm centres horizontally and vertically into the dense concrete blockwork using stainless steel galvanized screws. NOTE: Install the 12mm BAL BOARD in a broken bond or brick pattern. For uneven blockwork walls tile adhesive may be applied in addition to mechanical fixings. Before tiling apply one coat of BAL PRIME APD (Diluted 1:1 by volume with water) to the rough face of the BAL BOARD and allow to dry. BAL RAPIDSET FLEXIBLE FIBRE can be used when fixing tiles on to BAL BOARD 12mm.

#### Undertile electrical heating systems

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### **Flush Transitions to Drywall**

Ensure the framing is structurally sound and complies with local building regulations. Using 12mm BAL BOARD, align the board with the connecting drywall area. All joints must align with studding.

#### **Fixing Method:**

Applying the boards horizontally, screw fix the 12mm BAL BOARDS at 300mm centres horizontally and vertically using stainless steel galvanized screws. NOTE: Install in a broken bond or brick pattern.

### **Over Concrete/Cement:Sand Screeds Subfloors**

Before using BAL BOARD, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt and other loose materials. Remove all barriers to adhesion including polished concrete by the use of suitable mechanical methods.

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks

#### **Fixing Method:**

Before installing prime all faces of the BAL BOARDS with BAL PRIME APD (Diluted 1:1 by volume with water) and allow to dry. Using a minimum 6mm notched trowel, apply a thin bed of BAL RAPIDSET FLEXIBLE FIBRE see BAL TECHNICAL DATA SHEET for further information on mixing and application. NOTE: install the 6mm or 12mm BAL BOARD in a broken bond or brick pattern. Tape the joints using BAL SCRIM TAPE. BAL RAPIDSET FLEXIBLE FIBRE or BAL STONE & TILE PTB can be used when fixing ceramics or stone to BAL BOARD 6mm or 12mm.

### **Heated Screeds**

Suitable for use over sand/cement screeds with water fed underfloor heating encased within. Adhesive fixing method will be required.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### **Cutting the BAL BOARD (BAL BOARD 6mm and 12mm)**

Easy to cut, score and snap. BAL BOARD only requires a suitable utility knife just score the board and snap. No special tools needed.

1. Mark out the area to be cut and using a straight edge as a guide, score down the board using a utility knife, making sure to slice through the glass fibre mesh.
2. Pull the board edge towards you and snap the board.
3. Cut out for areas of fittings and fixtures should be done before installing the board.

### **Painted and Wallpaper Finishes**

Preparation procedure when painting or wallpapering Internal dry areas

1. The BAL BOARD must be installed with the smooth face outwards.
2. Wipe the face of the board with a damp cloth and leave to dry.
3. All screw fixings and board joints must be filled used the appropriate decorating filler before painting or wallpapering.

**HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

When cutting, always use a dust mask and suitable eye protection. It is always advisable to wear protective gloves when undertaking cutting of any material.

**TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

**POWERSPEC**

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling. Visit: [www.powerspeconline.com](http://www.powerspeconline.com)

**SHELF LIFE**

Not applicable if stored correctly under normal dry conditions. Protect from frost and damp.

**QUALITY AND ENVIRONMENTAL STANDARDS**

Certified by the BBA (British Board of Agreement).

**25 YEAR GUARANTEE**

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. *Contact BAL Marketing Department for full details.*

**CONDITIONS OF SALE**

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.  
PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# ctf4

## Cementitious tile adhesive walls & floors

### DESCRIPTION

Standard-setting, polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors.

### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, certain natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.

NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL rapid-setting white adhesive is recommended i.e. BAL RAPIDSET FLEXIBLE FIBRE WHITE. Do NOT use BAL CTF4 for translucent or water sensitive stone.

- Recommended for large format wall tiles.
- Recommended for showers.

### Restrictions: NOT suitable for

- Metal, painted, Glass/metal tiles with water-sensitive coating on back, plywood walls\*, tiling to existing glazed tiles\* and areas of total immersion in water e.g. swimming pools.

*\*Further applications possible by adding BAL ADMIX AD1 to provide flexibility, increased adhesion and reduce water permeability. This enables use onto glazed surfaces.*

### PRODUCT INFORMATION

**Composition:** Standard-setting polymer-modified cement-based powder.

**Colours:** White.

**Type/Classification:** Exceeds BS EN 12004 C2TE – Cementitious Adhesive with Improved / Additional Characteristics, Reduced Slip, Extended Open Time.

**Pack sizes:** 20kg

### Key Features:

- Extended open times of 30 minutes.
- Pot life of 5 hours.
- Suitable for porcelain tiles.
- Use on walls and floors.
- Highly water/frost resistant.

**Grout after:** 16 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior (12)	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(5)	✓
Swimming Pools (b)(12)	✓	Heated Screeds (9)(11)(12)	✓
Hydrotherapy Pools (b)(1)(12)	✓	Limited Movement / Vibration (11)(12)	✓

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(4)(12)	✓
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)(12)	✓
Tile Backer/Fibre Cement Boards (9)(12)	✓
Glazed/Unglazed Ceramic Tiles / Hard Natural Stone (11)(12)	✓
Timber Floors (10)(12)	✓
Overlaid Timber Floors – 15mm min. (5)(6)(11)(12)	✓
Vinyl Tiles/Sheets (12)(13)	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate Screeds (8)(11)	✓
Plywood (Walls) (6)(8)(12)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Open Time	Pot Life	Setting Time**
2- 6mm	30 mins	5 hours	16 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

^ Up to 12mm in areas of limited extent. Use minimum 3mm for floor tiling.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	0.5m <sup>2</sup> /kg
Dry Wall	Round Notched	0.4m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.33m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.25m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 150°C
----------------

\*\*\* Cured adhesive.

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Prime with undiluted BAL PRIME APD.  
 (4) Direct fixing in dry conditions only.  
 (5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
 (6) Seal back face and edges with undiluted BAL BOND SBR.  
 (7) Check suitability of the grade of asphalt (flooring grade only).  
 (8) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.  
 (9) Check suitability for the intended purpose with the manufacturer.  
 (10) When used with BAL RAPID-MAT.  
 (11) May be used in conjunction with BAL RAPID-MAT.  
 (12) When modified with BAL ADMIX AD1, Pre-diluted 1:1 with water  
 (13) Alternatively, prime with undiluted BAL BOND SBR and allow to dry, fix tiles within 24 hours with BAL CTF4.

Not recommended for use on paint, metal.

### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4  
 BAL CTF4 is sulphate resistant.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

### SUITABLE SURFACES include:

#### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

## BAL QUICKSET RENDER: 2 hours

### Overlaid timber floors (min. 15mm)

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

### Tongued and grooved floorboards with BAL RAPID-MAT

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material. If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Plywood walls (internal dry areas only)

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Dense concrete/blockwork walling

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

### Lightweight blockwork/walling

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

– BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or

– BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

*N.B. Suitable for existing glazed tiles/brickwork when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

Prime Surface with undiluted BAL BOND SBR all allow to dry.

Fix tiles within 24 hours.

*Alternatively modify with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

#### Fibre reinforced cement boards and lightweight tile backer boards

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:3 by volume with clean cold water).*

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data

Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plasterboard (If required)

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Typical weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Undertile electrical heating systems

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 - 4 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

*See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.*

### Heated Screeds

*When adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors

– Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 3.6 parts powder to 1 part clean cold water by weight. (see table below)

2. Mix until lump-free mortar achieved.

3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
20kg	Wall & Floor Tiling	5.6 litres

NOTE: *If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

Ready for immediate use. Pot life at 20°C: approx. 5 hours.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperature=longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	BAL ROUND NOTCHED
Internal Wet Wall Area (up to 300x300mm tiles)	BAL THIN BED SOLID BED
External Walls and Floors	BAL THICK BED SOLID BED
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	BAL MOSAIC TROWEL

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 2 - 6mm or up to 12mm in limited, localised areas.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 30 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 16 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# level max

## High performance leveller with FST

### DESCRIPTION

Rapid-setting, high performance single part polymer-modified, protein-free, fibre cementitious leveller for floors.

### Use for

- Laying on absorbent and non-absorbent internal substrates; to prepare most floor surfaces including timber floors prior to installing:
  - Ceramic & porcelain tiles.
  - Glass/ceramic/stone mosaic tiles.
  - Natural stone.
  - Sheets and soft furnishing (inc. vinyl, linoleum, carpet). ^
  - Wooden flooring (inc. parquet flooring, laminates)
  - Resilient flooring ^
  - Certain floor paints
- NOTE:** BAL LEVEL MAX is not suitable as a wearing surface
- Bed depth from 2mm up to 80mm thickness
- Internal applications
- Dry environments only, unless using BAL WATERPROOFING KIT FOR SHOWERS, BAL WP1 TANKING SYSTEM or BAL TANK-IT.
- Suitable for underfloor heating.
- Domestic or commercial use.

^ Can receive ceramic or natural stone tiles after 4 hours at 20°C. A longer drying period will be required at thicker depths and/or lower site temperatures. Allow a minimum of 24 hours for soft floor coverings e.g. carpet, vinyl etc.

\*Up to 80mm in localised areas only. For larger areas a suitable aggregate should be included as this will facilitate application, increase yield and reduce cost. Thick layers must also be tiled within 48 hours. If this is not possible, the BAL LEVEL MAX must be covered with plastic sheeting until it is tiled.

Note: Ensure direct to earth subfloors incorporate an effective damp proof membrane.

### Restrictions: NOT suitable for

- Exterior use or total immersion areas (e.g. swimming pools).

### PRODUCT INFORMATION

**Composition:** Single-part, fibre reinforced, polymer modified rapid setting and shrinkage compensated cement based levelling compound. The formulation is protein-free.

**Colour:** Grey

**Type/Classification:** Exceeds BS EN 13813 CT – C25 – F7 – Cementitious screed, Compressive Strength is >25N/mm<sup>2</sup> and Flexural Strength is >7N/mm<sup>2</sup> after 28 days

**Pack size:** 25kg

### Key features:

- Bed depth 2mm – 80mm.
- Added flexibility and fibre technology.
- Can be applied at a minimum 3mm for timber floors.
- Accepts foot traffic in 3 hours.
- Self-smoothing, excellent flow and pumpable.
- Protein free formulation.
- Excellent coverage: 5m<sup>2</sup> at 3mm

**Tile after:** 4 hours (at 20°C)



## SURFACE PREPARATION

### General

Ensure surfaces are dry, sound, and free from grease, dust and any other contamination/barriers to adhesion.

All primed areas should be fully dry.

Ensure direct-to-earth sub-floors incorporate an effective damp proof membrane.

#### *Surface regularity:*

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. BAL LEVEL MAX may be used to correct floors to SR1 (+ or – 3mm or less over a 2 meter straight edge.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

*In wet areas:* Allow a minimum of 24 hours before waterproofing BAL LEVEL MAX with BAL WATERPROOFING KIT FOR SHOWERS, BAL WP1 TANKING SYSTEM or BAL TANK-IT.

### SUITABLE SURFACES include:

#### **Asphalt (suitable grade e.g. flooring)**

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water. No priming is needed.

Ensure that surface is sufficiently regular to suit bedding depths of BAL LEVEL MAX.

Apply leveller as required, minimum 3mm to maximum 6mm.

#### **Concrete; cement:sand screeds**

Must be fully cured and free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods.

Allow the following minimum drying times:

- Concrete: 6 weeks
- Cement:sand screed: 3 weeks

Absorbent cement:sand screeds and concrete.

Prime with BAL PRIME APD pre-diluted 1:1 with clean water. Allow to dry.

Low-absorbent cement:sand and concrete.

Dampen with clean water before laying BAL LEVEL MAX.

Note: Allow to dry for a minimum of 24 hours before soft finished can be used.

#### **Existing unglazed ceramic tiles, quarry tiles, terrazzo and natural stone**

Ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good any hollow/defective areas.

#### **Anhydrite/calcium sulfate and hemi-hydrate screed**

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### **Ceramic tile adhesive residues**

Remove as much adhesive as possible.

Ensure all residual adhesive is soundly bonded.

No priming is needed.

Do not apply over old adhesive residues that are softened by water.

#### **Cement:sand screeds with underfloor heating**

Switch off heating for MINIMUM 48 hours before application of BAL LEVEL MAX. Follow accordance with manufacturer's instructions.

Prime floor surface with BAL PRIME APD pre-diluted 1:1 with clean water.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### **Timber floors (hard floor finishes)**

##### **Overlaid timber floors (min. 15mm)**

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with a suitable water resistant, marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

Prime board surface with 2 coats of undiluted BAL PRIME APD, applying second coat at 90° to the first.

Allow each coat to dry.

##### **Tongued and grooved floorboards/18mm single layer WBP plywood**

Ensure boards are dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

A mesh may be required to reinforce BAL LEVEL MAX in critical areas. NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres or as per the board manufacturer's recommendations. Ensure no fixings protrude. Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

**IMPORTANT NOTE:** Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions. For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

Prime Surface with undiluted BAL BOND SBR all allow to dry. Level within 24 hours of application.

**NOTE:** Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to levelling.

## Uneven timber floors (for soft floor finishes inc. vinyl, linoleum, carpet).

Ensure boards are (i) dry, rigid and securely fixed; (ii) has adequate ventilation under the timber.

Lay BAL LEVEL MAX and allow to dry for a minimum of 24 hours before soft finished can be installed.

If required screw down layer of a suitable 12mm plywood compliant with BS6566 onto this levelled base.

## BAL RAPID-MAT

**NOTE:** Uncoupling matting such as BAL RAPID-MAT for fast track tiling onto problematic floors

– Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

## MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed leveller to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
25kg	Floors	5.25 litres

**NOTE:** If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 30 minutes.

**NOTE:** Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

## Trowel recommendations

Area	Recommended Application Tool
Small /medium to large size floors.	Steel trowel
Very large areas ( Pumpable)	Long hand blade

## Usage procedure

1. Prime the floor surface if required and allow to dry before mixing BAL LEVEL MAX. Note: Timber board joints where gaps between boards are open, use thin heavy duty tape to bridge joints, care must be taken not to over everywhere in tape (this will help to minimise the leveller disappearing beneath the sub-floor).
2. Pour mix over sub-floor and spread to required depth using a suitable steel finishing trowel or long hand blade.
3. Surface should be sufficiently smooth to receive floor coverings without further treatment. Note: Do NOT use a spiked roller; this will pull the fibres to the surface.

If any trowel marks remain: rub down before compound has hardened (after 3 hours).

4. Allow new floor surface to set. Depending on thickness of application, a 3mm layer BAL LEVEL MAX can receive foot traffic after 3 hours and receive tiling after 4 hours.
5. Show existing movement joints within the sub-floor and BAL LEVEL MAX when receive tile finishes.
6. Allow BAL LEVEL MAX to set for 24 hours when receive soft floor finishes (inc. vinyl, linoleum, carpet, resilient and certain floor paints)

## Product Technical Summary

### USAGE & SERVICE CONDITIONS

Floors	✓
Dry	✓
Wet (1)	✓
Interior	✓
Underfloor Heating (2)(3)	✓
Domestic	✓
Commercial	✓

- (1) In wet conditions tank out with BAL WATERPROOFING KIT FOR SHOWERS, BAL WP1 TANKING SYSTEM or BAL TANK-IT.  
(2) Where the surface is high absorbency, prime with BAL PRIME APD 1:1 with water.  
(3) Check suitability for the intended purpose with the manufacturer.  
(4) Seal back face and edges with undiluted BAL BOND SBR.  
(5) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.  
(6) Check suitability of the grade of asphalt (flooring grade only).  
(7) Where the surface has low absorbency, dampen with clean water.  
(8) A mesh may be required to reinforce BAL LEVEL MAX in critical areas.  
(9) Prime with undiluted BAL PRIME APD.

### BACKGROUNDS / BASES

Cement:Sand Screeds and Concrete with low/highly absorbent surface (2)(7)	✓
Cement:Sand Screeds with Underfloor Heating (2)(3)	✓
Overlaid Timber Floors (3)(4)(9)	✓
T&G Floorboards (8)(9)	✓
Single Layer Plywood (4)(8)(9)	✓
Ceramic tile adhesive residues	✓
Unglazed Ceramic Tiles / Hard Natural Stone	✓
Tile Backer/Fibre Cement Boards (3)(9)	✓
Mastic Asphalt (6)	✓
Anhydrite/Calcium Sulfate Screeds (3)(5)	✓

### USAGE: Bed Thickness / Time

Bed Thickness *	Pot Life	Setting Time <sup>^</sup>
2mm – 80mm	>30 mins	3 - 4 hours at 20°C

<sup>^</sup> Can receive ceramic or natural stone tiles after 4 hours at 20°C. A longer drying period will be required at thicker depths and/or lower site temperatures. Allow a minimum of 24 hours for soft floor coverings e.g. carpet, vinyl etc.

### TOOLS/COVERAGE

Recommended Application Tool	Typical Coverage <sup>^^</sup> at 3mm bed-thickness
Steel trowel	0.2m <sup>2</sup> /kg
Long hand blade	

<sup>^^</sup> May vary dependent on nature and flatness of surface, and thickness of application.

### TEMPERATURE RESISTANCE\*\*

-30°C to 100°C

\*\* Cured leveller.

### HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. Available on request.

For sales and technical queries, contact:

### BUILDING ADHESIVES LTD

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# max-flex fibre

## Highly Flexible cementitious wall & floor tile adhesive

### DESCRIPTION

Standard-setting, highly polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors.

### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, certain natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.

NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL Flexible Rapid-setting white adhesive is recommended i.e. BAL RAPIDSET FLEXIBLE FIBRE WHITE

- Recommended for large format wall tiles, areas of total immersion in water e.g. swimming pools and showers.
- Installations subject to limited movement and vibration.
- Heated screeds.
- Recommended for plywood walls.
- Recommended for existing glazed ceramic tiles.

### Restrictions: NOT suitable for

- Metal, painted, Glass/metal tiles with water-sensitive coating on back.

### PRODUCT INFORMATION

**Composition:** Standard-setting highly polymer-modified cement-based powder with BAL Fibre Strand Technology (FST).

**Colours:** White & Grey.

**Type/Classification:** Exceeds BS EN 12004 C2TES1 – Cementitious Adhesive with Improved / Additional Characteristics, Reduced Slip, Extended Open Time and Deformable.

**Pack sizes:** 20kg, 5kg – White. (Grey 20kg only)

### Key Features:

- Excellent non-slip for large format wall tiles.
- Lightweight rheology for improved consistency.
- Extended open times of over 40 minutes to allow greater area when fixing.
- Pot life 5 hours
- FST formulation for improved flexibility and strength.
- Smoother consistency for easier mixing and application.
- Use on walls and floors.

**Grout after:** 16 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers	✓
		(a)(5)	
Swimming Pools	✓	Heated	✓
(b)		Screeds	
		(9)(11)	
Hydrotherapy	✓	Limited	✓
Pools (b)(1)		Movement	
		/ Vibration	
		(11)	

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork	✓
(2)(3)(4)	
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)	✓
Tile Backer/Fibre Cement	✓
Boards (9)	
Glazed Ceramic Tiles /	✓
Hard Natural Stone (11)	
Timber Floors (10)	✓
Overlaid Timber Floors –	✓
15mm min. (5)(6)(11)	
Vinyl Tiles/Sheets	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate	✓
Screeds (8)(11)	
Plywood walls (6)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Open Time	Pot Life	Setting Time**
Up to 6mm	>40 mins	5 hours	16 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	0.6m <sup>2</sup> per kg
Dry Wall	Round Notched	0.5m <sup>2</sup> per kg
Wet Wall	Thin Bed Solid Bed	0.4m <sup>2</sup> per kg
Exteriors / Floors	Thick Bed Solid Bed	0.26m <sup>2</sup> per kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C
----------------

\*\*\* Cured adhesive.

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Prime with undiluted BAL PRIME APD.  
 (4) Direct fixing in dry conditions only.  
 (5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
 (6) Seal back face and edges with undiluted BAL BOND SBR.  
 (7) Check suitability of the grade of asphalt (flooring grade only).  
 (8) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.  
 (9) Check suitability for the intended purpose with the manufacturer.  
 (10) When used with BAL RAPID-MAT.  
 (11) May be used in conjunction with BAL RAPID-MAT.

Not recommended for use on paint, metal.

### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL MAX-FLEX FIBRE is sulphate resistant.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

#### SUITABLE SURFACES include:

##### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening, etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

##### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

##### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

##### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

## BAL QUICKSET RENDER: 2 hours

### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

### Tongued and grooved floorboards with BAL RAPID-MAT

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and is sufficiently flat (SR1).

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and is sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Existing glazed and unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

#### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude. Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

### Plywood walls

#### (internal dry areas only)

Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup>; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry. Do NOT prime surfaces to be tiled.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 – 4 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors – Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 3.6 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
20kg White	Wall & Floor Tiling	5.5 – 6.0 litres
10kg White	Wall & Floor Tiling	2.8 – 3.0 litres
5kg White	Wall & Floor Tiling	1.4 – 1.5 litres
20kg Grey	Wall & Floor Tiling	5.2 – 5.7 litres

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 5 hours.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
External Walls and Floors	<b>BAL THICK BED SOLID BED</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness up to 6mm maximum.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 40 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 16 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# pourable one

## Flexible cementitious floor tile adhesive

### DESCRIPTION

Rapid-setting, highly polymer-modified, water/frost-resistant cementitious tile adhesive for floors.

#### Use for

- Fixing large and small format ceramics, porcelain and vitrified tiles, most natural stones, terrazzo in dry or wet interior and exterior environments.
- For fixing agglomerate stone please contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.
- Recommended for large format tiles, uneven thickness (slate) tiles/slabs, areas of total immersion in water e.g. swimming pools bases and wet room floors.
- Also suitable as patch repair mortar.
- Installations subject to limited movement and vibration.
- Heated screeds.

#### Restrictions: NOT suitable for

- Metal, painted and tiling to existing glazed tiles\*.

*\*Further applications possible by adding BAL ADMIX AD1 to provide flexibility, increased adhesion and reduce water permeability. This enables use onto glazed surfaces.*

#### PRODUCT INFORMATION

**Composition:** Rapid-setting highly polymer-modified cement-based powder.

**Colours:** White.

**Type/Classification:** Exceeds BS EN 12004 **C2F** – Cementitious Adhesive with Improved / Additional Characteristics and Fast Setting

**Pack sizes:** 20kg

#### Key Features:

- Up to 25mm bed thickness in one application.
- Ideal for patch repair
- Sets in 3 hours at 3mm or 25mm thickness.
- Ideal for Underfloor and undertile heating.
- Suitable for porcelain tiles and most natural stones.
- One for all; white in colour, only one bag is needed

**Grout after:** 3 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✗	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops	✗	Showers	✓
		floors (a)(5)	
Swimming Pools	✓	Heated	✓
Base (b)		Screeds	
		(9)(11)	
Hydrotherapy	✓	Limited	✓
Pools Base (b)(1)		Movement /	
		Vibration (11)	

### BACKGROUNDS / BASES

Concrete (2)	✓
Cement:Sand Screed (11)	✓
BAL BOARD /Tile	✓
Backer/Fibre Cement	
Boards (9)	
Unglazed Ceramic Tiles /	✓
Hard Natural Stone (11)	
Timber Floors (10)	✓
Overlaid Timber Floors –	✓
15mm min.(6)(11)	
Vinyl Tiles/Sheets	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate	✓
Screeds (8)(11)	
Glazed Tiles (12)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness ^	Open Time	Pot Life	Setting Time**
3- 25mm	20 mins	30 mins	3 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

#### COVERAGE

Area	Trowel	Coverage ^^
Internal Floors	Mosaic	0.75m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.25m <sup>2</sup> /kg
Exteriors / Floors	Large Format	0.125m <sup>2</sup> /kg
Exteriors / Floors	Solid Bed Tipped	0.17m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

#### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured adhesive.

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
(2) Provided the surface is sufficiently flat.  
(3) Prime with undiluted BAL PRIME APD.  
(4) Direct fixing in dry conditions only.  
(5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
(6) Seal back face and edges with undiluted BAL BOND SBR.  
(7) Check suitability of the grade of asphalt (flooring grade only).  
(8) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.  
(9) Check suitability for the intended purpose with the manufacturer.  
(10) When used with BAL RAPID-MAT.  
(11) May be used in conjunction with BAL RAPID-MAT.  
(12) When modified with BAL ADMIX AD1, Pre-diluted 1:3 with water  
**Not recommended for use on paint, metal or existing glazed tiles.**

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
(b) Do not fill pool for at least 3 weeks after completion of grouting  
- BS 5385:Part 4 BAL POURABLE ONE is sulphate resistant.



## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

#### SUITABLE SURFACES include:

##### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening, etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

##### Concrete; cement:sand screeds

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

##### BAL QUICKSET CEMENT:sand screeds

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours

##### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry. *NOTE: Timber is not a suitable base for floor tiling in wet, frequently damp, or high humidity areas, unless appropriate precautions are taken (see BS 5385-4). BS 5385 -3: 2014*

### Tongued and grooved floorboards with BAL RAPID-MAT

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

**NOTE:** For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX. Consideration may be given to the use of BAL RAPID MAT

BAL LEVELLER	THICKNESS*	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 – 4 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.\*Up to 80mm in localised areas only. Thick layers must also be tiled within 48 hours.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Existing glazed/unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

N.B. Suitable for existing glazed tiles when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:3 by volume with clean cold water).

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards such as BAL BOARD and screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations (see BAL TECHNICAL DATA SHEET on BAL BOARD for further information).

Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors – Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
20kg White	Floor Tiling	4.0 litres

NOTE: *If using electric drill mixer*, blend at slow speed (i.e. under 300rpm).

Pot life at 20°C: approx. 5 hours.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

#### Trowel recommendations

Area	Trowel
External Floors	<b>THICK BED SOLID BED</b>
Large Format Tiles	<b>LARGE FORMAT TROWEL</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 3 - 25mm. *If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*
2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position. *For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.
3. Fix mosaics/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.
4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.
5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.
6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### **Patch repair (if required)**

1. Apply adhesive into crevices/indentations etc.
  2. Once the surface is hardening, finish with wood float and allow to dry.
  3. Repair may be tiled after 3 hours.
- Apply adhesive directly to clean, sound and dry concrete or existing screed up to required thickness (max 25mm).

### **Grouting**

1. Wait minimum 3 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

#### **NOTE:**

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

### **HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### **POWERSPEC**

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### **SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

### **QUALITY AND ENVIRONMENTAL STANDARDS**

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### **25 YEAR GUARANTEE**

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### **CONDITIONS OF SALE**

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### **BUILDING ADHESIVES LTD**

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd



# Rapid flex one

## Flexible cementitious wall & floor tile adhesive with FST

### DESCRIPTION

Rapid-setting, highly polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors.

#### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, most natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.
- Recommended for large format wall tiles, areas of total immersion in water e.g. swimming pools and showers.
- Installations subject to limited movement and vibration.
- Heated screeds.

#### Restrictions: NOT suitable for

- Metal, painted, Glass/metal tiles with water-sensitive coating on back, plywood walls\* and tiling to existing glazed tiles\*.

*\*Further applications possible by adding BAL ADMIX AD1 to provide flexibility, increased adhesion and reduce water permeability. This enables use onto glazed surfaces.*

### PRODUCT INFORMATION

**Composition:** Rapid-setting highly polymer-modified cement-based powder with BAL Fibre Strand Technology (FST).

**Colours:** White.

**Type/Classification:** Exceeds BS EN 12004 **C2FES1** – Cementitious Adhesive with Improved / Additional Characteristics, Fast Setting, Extended Open Time and Deformable.

**Pack sizes:** 20kg

#### Key Features:

- Extended open times of 30 minutes.
- Extended working times of 60 minutes.
- FST formulation for improved flexibility and strength.
- Smoother consistency for easier mixing and application.
- Use on walls and floors.

**Grout after:** 3 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers	✓
		(a)(5)	
Swimming Pools (b)	✓	Heated Screeds	✓
		(9)(11)	
Hydrotherapy Pools (b)(1)	✓	Limited Movement / Vibration	✓
		(11)	

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Prime with undiluted BAL PRIME APD.  
 (4) Direct fixing in dry conditions only.  
 (5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
 (6) Seal back face and edges with undiluted BAL BOND SBR.  
 (7) Check suitability of the grade of asphalt (flooring grade only).  
 (8) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.  
 (9) Check suitability for the intended purpose with the manufacturer.  
 (10) When used with BAL RAPID-MAT.  
 (11) May be used in conjunction with BAL RAPID-MAT.  
 (12) When modified with BAL ADMIX AD1, Pre-diluted 1:3 with water.  
**Not recommended for use on paint, metal or existing glazed tiles.**

- Note:**  
 (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL Rapid Flex One is sulphate resistant.

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(4)	✓
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)	✓
BAL BOARD/Tile Backer/Fibre Cement Boards (5)(9)	✓
Glazed Ceramic Tiles / Hard Natural Stone (11)(12)	✓
Timber Floors (10)	✓
Overlaid Timber Floors – 15mm min. (6)(11)	✓
Vinyl Tiles/Sheets	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate Screeds (8)(11)	✓
Plvwood walls (6)(12)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness ^	Open Time	Pot Life	Setting Time**
2- 6mm	>30 mins	60 mins	3 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

^ Up to 12mm in areas of limited extent. Use minimum 3mm for floor tiling.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	0.6m <sup>2</sup> /kg
Dry Wall	Round Notched	0.5m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.4m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.26m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured adhesive.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSIBLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

### SUITABLE SURFACES include:

#### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening, etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

**BAL QUICKSET RENDER: 2 hours**

#### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

#### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry. *NOTE: Timber is not a suitable base for floor tiling in wet, frequently damp, or high humidity areas, unless appropriate precautions are taken (see BS 5385-4). BS 5385 -3: 2014*

#### Tongued and grooved floorboards with BAL RAPID-MAT

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

#### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

**NOTE:** For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material. If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

## Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 32kg/m<sup>2</sup>.

## Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

– BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or

– BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

## Existing unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

N.B. Suitable for existing glazed tiles/brickwork when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:3 by volume with clean cold water).

## Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

## Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards such as BAL BOARD and screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations (see BAL TECHNICAL DATA SHEET on BAL BOARD for further information).

Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

## Plywood walls (internal dry areas only)

Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:3 by volume with clean cold water). Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup> ; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

Do NOT prime surfaces to be tiled.

## Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS*	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 – 4 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application. \*Up to 80mm in localised areas only. Thick layers must also be tiled within 48 hours.

## Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors – Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

## MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 4 to 5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
20kg	Wall Tiling	3.6 – 4.0 litres
20kg	Floor Tiling	5.0 litres

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Pot life at 20°C: approx. 60 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>THIN BED SOLID BED</b>
External Walls and Floors	<b>THICK BED SOLID BED</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 2 - 6mm or up to 12mm in limited, localised areas.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 30 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 3 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

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### POWERSPEC

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

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Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd





# rapid mat

## Uncoupling Matting for floors with limited movement

### DESCRIPTION

BAL RAPID MAT is an uncoupling matting to accommodate lateral movement for tile installations on floors with limited movement when used as a system, with a recommended BAL flexible cementitious adhesives.

#### Use for

- Installation of ceramic and porcelain tiles, slabs, natural stone and concrete pavers.
- Counteracts and therefore minimises tension stresses between the substrate and the floor to be installed.
- Prevents reflective cracking caused by shrinkage cracks, board joints and lateral movement.
- Provides crack bridging and allowing a safe installation onto challenging substrates.
- Suitable for internal flooring; renovation and new construction, domestic and commercial areas in medium/heavy duty applications.
- Suitable for bathroom and kitchen areas
- Recommended for heated floors and timber floors.

#### Restrictions: NOT suitable for

- Exterior environments
- Permanently wet environments
- Substrates with deflection (vertical movements).
- Use on parquet flooring.
- Bridging movement joints.

### PRODUCT INFORMATION

**Composition:** Two layers of non-woven polypropylene with an inner layer of glass filament.

**Colour:** Red

**Pack sizes:** 30m rolls

**Sheet Width:** 1m

**Sheet Thickness:** 0.85 mm

**Sheet Weight:** approx. 270g/ m<sup>2</sup>

**Roll Weight:** approx. 8.5kg

#### Additional Benefits:

- Fast-track system: tiling can be carried out immediately.
- Reduced adhesive consumption relative to cavity based mats.
- Minimal mat compression with providing increased loading capacity on floors following installation compared to uncoupling mats with cavities.
- Lightweight matting: only 8.5kg per roll.
- Easy to install i.e. cut and place.
- Minimises height building-up with only 1mm thickness.
- Can be stored for approx. 24 months in dry rooms, away from direct sunlight.

### USAGE & SERVICE CONDITIONS

Walls	✗	Floor	✓
Interior	✓	Exterior	✗
Dry	✓	Shower	✓
		Floors (1)	
Movement	✓	Chemical	✗
Vibration		Resistance	
Medium/	✓		
Heavy Duty (2)			

### APPLICATION AREAS

Leisure Centres	✓
Bathrooms	✓
Changing Rooms	✓
Car Showrooms	✓
Domestic Kitchens	✓
Shopping Malls	✓
Heated Floors	✓
Wet Rooms	✓
Timber Floors	✓

### TEMPERATURE RESISTANCE

-30°C to 90°C **N.B** Tiling should not be carried below 5°C

(1) Apply BAL TANK IT or BAL WP1 TANKING SYSTEM over matting before application of tiling (No Priming required).

(2) Floors must be even and load bearing and prepared to SR1 standard. All tiles must be solidly bedded in a suitable BAL flexible tile adhesive.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat to SR1 tolerance as recommended in BS 5385: Part 3. Substrates must be clean, dry, sound and free from contamination and stable enough to receive tiling.

The surface must be levelled to SR1 prior to installation. Uneven surfaces have to be primed and levelled with BAL primers and levelling compounds prior the installation of RAPID-MAT using suitable BAL Flexible cement based adhesive.

The BAL RAPID-MAT is suitable for bridging static cracks less than 2 mm wide if differences in height can be excluded. Always ensure the correct adhesives and grouts are selected for the installation.

BAL RAPID-MAT can be used in internal wet floor areas when used with BAL TANK-IT or BAL WP1 TANKING SYSTEM/WATERPROOFING KIT FOR SHOWERS (no priming required on to BAL RAPID-MAT).

**IMPORTANT NOTE:** Do NOT install BAL RAPID-MAT or tiles in temperatures below 5°C

### APPLICATION

1. The substrate must be even and load bearing.
2. If necessary the floor may require priming with BAL PRIME APD or levelled using a suitable BAL Smoothing and levelling compound such as BAL LEVEL MAX.
3. Roll out the BAL RAPID -MAT from the corner and cut them precisely to the required length and sizes as required for the floor. Trim off any excesses around up-stands using scissors or a utility knife.
4. Apply a thin bed of a suitable BAL flexible tile adhesive to bond the BAL RAPID- MAT which is appropriate for the substrate to be tiled. Use a MOSAIC TROWEL (or 4 x 4 mm notched trowel).
5. Roll back and lay the BAL RAPID-MAT into the freshly applied tile adhesive. The mat must be fully engaged into the adhesive to provide a suitable bond and applied within the open-time of the adhesive. If the adhesive has started to skin or set, remove this layer of adhesive and re-apply a fresh layer.
6. To ensure full adhesion is achieved between the BAL RAPID-MAT and the BAL tile adhesive, smooth out the matting using either the flat edge of a steel trowel or a suitable float. Eliminate any air pockets.
7. Where additional rolls / membrane are needed on the floor, ensure the separate mats are butt jointed at the edges but not overlapped. Remove any excess tile adhesive which may have squeezed through the joints.  
**N.B** The matting must always be separated where a change in substrate occurs or a construction/movement joint is present in the background.
8. To apply tiles, mix and apply the adhesive to the mat using a THICK BED SOLID BED TROWEL. If using a LARGE FORMAT TROWEL ensure the final bed thickness of the tile adhesive does not exceed 6mm over the BAL RAPID-MAT.
9. If a BAL flexible rapid-setting cementitious based adhesive is used the tiles can be applied immediately.
10. Always take care when applying the layer of adhesive and tiles onto the mat to avoid de-bonding the mat.
11. Ensure you follow all required fixing instructions for the adhesive used and all applicable industry standards.

## GENERAL PROPERTIES AND AREAS OF APPLICATION

BAL RAPID-MAT absorbs the lateral movement tensions from the substrate and bridges stress cracks to prevent movement being transferred to the surface covering.

Its resistance to stresses should be examined separately based on the expected concentration, temperature and exposure time.

BAL RAPID-MAT can be used in a broad range of installations; however its suitability for specific mechanical conditions must be evaluated for each individual case. As some general guidelines BAL RAPID-MAT can be applied to:

### Concrete and Cement Sand Screeds

- Allow concrete to dry for a minimum of 6 weeks (at 20°C).
- Allow cement: sand screeds to dry for a minimum of 3 weeks (at 20°C).

Allow OPC based cement: sand screeds to dry to a moisture content of less than <2% Carbide Method before fixing commences

- For screeds containing BAL QUICKSET CEMENT, allow to dry to a moisture content of less than <2% w/w Carbide Method before fixing commences

Please refer to the BAL QUICKSET CEMENT data sheet for typical drying times.

All dirt, dust laitance must be removed using suitable mechanical methods followed by use of suitable vacuuming equipment. If levelling is required, prime using BAL PRIME APD (Diluted 1:1 by volume with water) followed by the application of a suitable BAL levelling compound such as BAL LEVEL MAX. Allow to dry.

### Heated Cement: Sand Screeds

- Allow cement: sand screeds to dry for a minimum of 3 weeks (at 20°C) and conditioned in accordance with BS requirements

Please refer to the BAL QUICKSET CEMENT data sheet for typical drying times.

All dirt, dust laitance must be removed using suitable mechanical methods followed by use of suitable vacuuming equipment. If levelling is required, prime using BAL PRIME APD (Diluted 1:1 by volume with water) followed by the application of a suitable BAL levelling compound such as BAL LEVEL MAX. Allow to dry before installing BAL RAPID-MAT. Ensure that the underfloor heating system has been correctly pressurised and fully commissioned in line with British Standards requirements.

### **Undertile Floor Heating**

The background must be suitably load bearing and free from any deflection. Ensure the heating system is installed correctly in accordance with the heating manufacturer's recommendations. All electrical heating elements must be encapsulated within a BAL levelling compound i.e. BAL LEVEL MAX. Allow to dry before installing BAL RAPID-MAT

### **Calcium Sulfate/Anhydrite(Gypsum)Based Screeds**

All laitance, dust, dirt or any other loose surface material incompatible with the tile adhesive must be removed i.e. using a sanding machine (rotary floor scarifier) and a 60 grit paper. Remove excess dust completely by the use of suitable vacuum equipment.

The screed must be allowed to dry to a moisture content of <75% RH as measured by use of a suitable Hygrometer or <0.5% w/w (as determined using the Carbide Method). Seek further advice on how to achieve this from the screed manufacturer.

Once tested to be dry, the surface should be treated to ensure clean and laitance free. The surface must then be primed using BAL -PRIME APD mixed at a 1:1 ratio with water with a second coat (undiluted) applied once the first is dry and at 90° to the first. The floor must be level to SR1 prior to installation.

### **Tongue and Grooved Timber/Single Layer Plywood**

Ensure all sheets/T&G boards are sufficiently rigid and free from deflection. The moisture content of the timber must be the same as moisture conditions on site and the floor must be adequately ventilated underneath.

Sheets/T&G boards must be securely fixed i.e. with suitable screws to the joist and any additional noggins which may be required at 300mm centres.

All vanishes/ lacquers and other surface coatings must be removed e.g. by sanding and all dust removed. Prime T&G Boards with 2 coats of undiluted BAL PRIME APD applied at 90° to each other. Allow to dry between coats.

Plywood sheets must be of a suitable moisture resistant grade. To BS EN Prime the back face and edges of the boards with e.g. undiluted BAL BOND SBR. Further advice should be sought from BS 5385: Part 3

### **Mastic Asphalt (Internal Grade)**

Before tile fixing commences the asphalt base should be examined to ensure that it is in a suitable condition to receive tiles; in particular, it should have adequate cohesive strength and should be laid on a firm and rigid base. Sand rubbed surfaces should be carefully examined to ensure all loose sand or debris is completely removed from the surfaces prior to the commencement of tiling. The Asphalt must be level i.e. to SR1 tolerance before application of BAL RAPID-MAT.

### **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### **POWERSPEC**

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### **SHELF LIFE**

48 months under normal dry conditions. Protect from frost, damp and sunlight.

**QUALITY AND ENVIRONMENTAL STANDARDS** Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### **25 YEAR GUARANTEE**

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# single part fastflex

## One-part elastomeric tile adhesive with acoustic properties

### DESCRIPTION

Rapid-setting, highly polymer-modified, water/frost-resistant elastomeric tile adhesive with acoustic properties. BAL 'Go Greener' range of environmentally responsible adhesives.

### Use for

- Improving sound-reduction properties of floors tiles with ceramics, porcelain and vitrified tiles, mosaics, slate and certain natural stones including marble, terrazzo in dry or wet interior and exterior environments. Contact BAL TECHNICAL ADVISORY SERVICE when recommending approved sound-reduction mat systems.  
NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL rapid-setting white adhesive is recommended i.e. BAL SINGLE PART FASTFLEX WHITE.
- Recommended for areas subjected to limited movement and vibration. Also as isolating, anti-fracture underlay for ceramic tiles.
- To help achieve requirements of Building Regulations Part E (Resistance to sound)

### Restrictions: NOT suitable for

Do NOT use with BAL RAPID-MAT,  
Note: when used on walls, battons will be required.

### PRODUCT INFORMATION

**Composition:** Rubber-based powder

**Colours:** Grey and White

**Type/Classification:** Exceeds BS EN 12004 C1S2 - Cementitious (Rubber/cement based), Normal Characteristics and Highly Deformable

**Pack sizes:** 12.5kg

### Key Features:

- Highly flexible elastomeric anti-fracture underlay
- Improved sound-reduction properties and independently tested
- Suitable for porcelain tiles

**Grout after:** 5 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(5)	✓
Swimming Pools (b)	✓	Heated Screeds (9)	✓
Hydrotherapy Pools (b) (1)	✓	Limited Movement/Vibration	✓

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
(2) Provided the surface is sufficiently flat.  
(3) Prime with undiluted BAL PRIME APD.  
(4) Battons may be required on walls  
(5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.  
(6) When fix sound-reduction underlayment's to floors, using BAL MOSAIC TROWEL and tiles fixed using BAL TIPPED TROWEL.  
(7) Check suitability of the grade of asphalt (flooring grade only).  
(8) Prime with BAL PRIME APD or BAL PRIMER, first coat 1:1 with water, second coat undiluted 90°C to the first.  
(9) Check suitability for the intended purpose with the manufacture.

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
(b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL SINGLE PART FASTFLEX is sulphate resistant.  
(c) BAL cement-based grout modified with BAL ADMIX GT1 1:1 with Water/or BAL MICROMAX2 with BAL ADMIX GT1 1:2 with water

### BACKGROUNDS / BASES

Epoxy coatings (6)	✓
Steel (c)(4)(6)	✓
Floorboards (c)(3)(6)	✓
Plywood/Chipboard	✓
Sheets (c)(4)(6)(9)	✓
Brick/Concrete (2)(4)(6)	✓
Tile Backer/Fibre Cement Boards (4)(6)(9)	✓
Cement:Sand Screed (6)	✓
Anhydrite/Calcium Sulfate Screeds (6)(8)	✓
Glazed Ceramic Tiles/Hard Natural Stone (4)(6)	✓
Vinyl Tiles/Sheets (6)	✓
GRP (Internal only) (c)(5)(9)	✓
Lightweight Blockwork (2)(3)(4)	✓
Mastic Asphalt (6)(7)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness <sup>^</sup>	Open Time*	Pot Life	Setting Time*
3-6mm <sup>^^</sup>	20 mins	45 mins	5 hours

\* Open time/Setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

<sup>^</sup> Up to 10mm in areas of limited extent.

<sup>^^</sup> 3mm minimum thickness, when used for sound-reduction or anti-fracture underlayment.

### COVERAGE

Area	Trowel	Coverage <sup>^</sup>
Exteriors / Floors	THICK BED SOLID BED	0.52m <sup>2</sup> /kg
Sound-Reduction / Timber floors	SOLID BED TIPPED TROWEL	0.46m <sup>2</sup> /kg
Large Format (floors)	LARGE FORMAT TROWEL	0.34m <sup>2</sup> /kg
Mosaic/ fixing sound underlayment	MOSAIC TROWEL	1.15m <sup>2</sup> /kg

<sup>^</sup> May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*

-30°C to 60°C (up to 100°C for limited exposure)

\*\* Cured adhesive.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSIBLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

### SUITABLE SURFACES include:

#### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIMER for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools).

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

**BAL QUICKSET RENDER:** 2 hours

#### Existing glazed and unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base. If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with

appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

#### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

#### Tongued and grooved floorboards

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

#### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

#### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude. Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

#### Plywood walls

##### (internal dry areas only)

Note: when used on walls, battens may be required. Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup>; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

Do NOT prime surfaces to be tiled.

#### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If plaster is shiny or polished, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1).

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 – 4 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### OTHER SUBSTRATES that may be suitable include

Chipboard/plywood  
GRP (Internal only)  
Epoxy coatings  
Steel

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### SUITABLE SURFACES

(with acoustic mat fitted)

#### Concrete and timber

Tiles to be fixed should ideally be 11mm thick (although 8mm tiles may be used) and larger than 100mmx100mm.

Ensure both acoustic mat and substrate have been tested/approved by BAL, are sound and free from contamination.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 3.6 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
12.5kg White	Floor Tiling	4.1 litres
12.5kg Grey	Floor Tiling	4.5 litres
5kg Grey	Floor Tiling	1.8 litres

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 45 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

### APPLICATION/USAGE

Do NOT use in temperature 5°C or damp conditions.

### Trowel recommendation

Area	Trowel
External/large format Wall Tiles and Floors	BAL THICK BED SOLID BED
Mosaics/Fixing Sound Underlayment's	BAL MOSAIC TROWEL
Large Format (floors)	BAL LARGE FORMAT TROWEL
Sound-Reduction/Timber Floors	BAL SOLID BED TIPPED

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.



### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in bed thickness of 2- 10mm. NOTE: If bonding sound-reduction matting to the substrate with BAL SINGLE PART FASTFLEX, use a BAL MOSAIC TROWEL.

*If fixing large/heavily-patterned tiles, additional adhesive to tile reverse.*

2. For *mosaics*: using a rubber tile float, press mosaics into adhesive and beat into required position. NOTE: Mosaic tiles are NOT recommended to be fixed on to sound-reduction matting (minimum 100x100mm tiles 11mm thick (although 8mm tiles may be used)).

For *tiles*: press tile firmly into the ribs of adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaic/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity/atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

#### Fixing Sound-Reduction Matting

NOTE: Check application and suitability for the intended purpose with the manufacture, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for approved matting systems.

1. The substrate must be even or BAL Levelling compound may be used.

2. Apply a thin bed of BAL SINGLE PART FASTFLEX using a BAL MOSAIC TROWEL (or 4x4mm notched trowel).

3. Roll back and lay the sound –reduction matting into the fresh engaged into the adhesive to provide a suitable bond and applied within the open-time of the adhesive.

4. To ensure full adhesion is achieved between the matting and the adhesive, smooth out the matting using either the flat edge of a steel trowel or a suitable float. Eliminate any air pockets.

5. Tiles can be fixed once the matting been lay into the wet adhesive.

6. To apply tiles, mix and apply the adhesive to the mat using a BAL SOLID BED TIPPED TROWEL, ensure the final bed thickness of adhesive does not exceed 3-4mm bed over the matting.

### Grouting

1. Wait minimum 5 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics*: Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

#### NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

### HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# single part flexible

## Flexible cementitious wall & floor tile adhesive

### DESCRIPTION

Standard-setting, highly polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors.

### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, certain natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.

NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL RAPIDSET FLEXIBLE FIBRE or BAL STONE & TILE PTB WHITE.

- Recommended for large format wall tiles, areas of total immersion in water e.g. swimming pools and showers.
- Installations subject to limited movement and vibration.
- Heated screeds.

### Restrictions: NOT suitable for

- Metal, painted, Glass/metal tiles with water-sensitive coating on back, plywood walls and tiling to existing glazed tiles.

### PRODUCT INFORMATION

**Composition:** Standard-setting highly polymer-modified cement-based powder.

**Colours:** Grey & White.

**Type/Classification:** Exceeds BS EN 12004 C2TE – Cementitious Adhesive with Improved / Additional Characteristics, Reduced Slip, Extended Open Time.

**Pack sizes:** 20kg

### Key Features:

- Extended open times of 30 minutes.
- Pot life of 5 hours.
- Suitable for porcelain tiles.
- Use on walls and floors.
- Highly water/frost resistant.

**Grout after:** 16 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(5)	✓
Swimming Pools (b)	✓	Heated Screeds (9)(11)	✓
Hydrotherapy Pools (b)(1)	✓	Limited Movement / Vibration (11)	✓

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(4)	✓
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)	✓
Tile Backer/Fibre Cement Boards (9)	✓
Unglazed Ceramic Tiles / Hard Natural Stone (11)	✓
Timber Floors (10)	✓
Overlaid Timber Floors – 15mm min. (5)(6)(11)	✓
Vinyl Tiles/Sheets	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate Screeds (8)(11)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Open Time	Pot Life	Setting Time**
2- 6mm	30 mins	5 hours	16 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

^ Up to 12mm in areas of limited extent. Use minimum 3mm for floor tiling.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	0.6m <sup>2</sup> /kg
Dry Wall	Round Notched	0.5m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.4m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.26m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured adhesive.

- Tiles must be grouted using BAL EASYPOXY AG.
- Provided the surface is sufficiently flat.
- Prime with undiluted BAL PRIME APD.
- Direct fixing in dry conditions only.
- In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.
- Seal back face and edges with undiluted BAL BOND SBR.
- Check suitability of the grade of asphalt (flooring grade only).
- Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.
- Check suitability for the intended purpose with the manufacturer.
- When used with BAL RAPID-MAT.
- May be used in conjunction with BAL RAPID-MAT.

Not recommended for use on paint, metal or existing glazed tiles.

### Note:

- Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4
- Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL SINGLE PART FLEXIBLE is sulphate resistant.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

#### SUITABLE SURFACES include:

##### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening, etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

##### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic.*

##### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

##### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

## BAL QUICKSET RENDER: 2 hours

### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

### Tongued and grooved floorboards with BAL RAPID-MAT

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material. If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	3mm – 30mm	3 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors – Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 3.5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
20kg	Wall & Floor Tiling	5.4 – 5.6 litres

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 5 hours.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
External Walls and Floors	<b>BAL THICK BED SOLID BED</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 2 - 6mm or up to 12mm in limited, localised areas.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 30 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 16 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

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### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd



CI/SfB

Date Issued: 16<sup>th</sup> December 2016

# supercover rapid flex

## High yield flexible tile adhesive for walls and floors

### DESCRIPTION

Rapid-setting, highly polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors. BAL 'Go Greener' range of environmentally responsible adhesives.

### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, certain natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.

NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL RAPIDSET FLEXIBLE FIBRE WHITE or BAL STONE & TILE PTB WHITE.

- Recommended for large format wall tiles, areas of total immersion in water e.g. swimming pools and showers.
- Installations subject to limited movement and vibration.
- Heated screeds.

### Restrictions: NOT suitable for

- Metal, painted, glass/metal tiles with water-sensitive coating on back, plywood walls and tiling to existing glazed tiles.

### PRODUCT INFORMATION

**Composition:** Rapid-setting highly polymer-modified cement-based powder.

**Colours:** Grey & White.

**Type/Classification:** Exceeds BS EN 12004 C1FTS1 (grey) – Cementitious Adhesive with Normal Characteristics, Fast Setting, Reduced Slip and Deformable.

**Pack sizes:** 15kg

### Key Features:

- High yield adhesive for further coverage per bag.
- BAL 'Go Greener' range of environmentally responsible adhesives.
- Highly Flexible.

**Grout after:** 3 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(5)	✓
Swimming Pools (b)	✓	Heated Screeds (9)(11)	✓
Hydrotherapy Pools (b)(1)	✓	Limited Movement / Vibration (11)	✓

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(4)	✓
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)	✓
Tile Backer/Fibre Cement Boards (9)	✓
Unglazed Ceramic Tiles / Hard Natural Stone (11)	✓
Timber Floors (10)	✓
Overlaid Timber Floors – 15mm min. (5)(6)(11)	✓
Vinyl Tiles/Sheets	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate Screeds (8)(11)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Open Time	Pot Life	Setting Time**
2- 6mm	20 mins	45 mins	3 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

^ Up to 12mm in areas of limited extent. Use minimum 3mm for floor tiling.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	1.m <sup>2</sup> /kg
Dry Wall	Round Notched	0.8m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.64m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.42m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured adhesive.

(1) Tiles must be grouted using BAL EASYPOXY AG.

(2) Provided the surface is sufficiently flat.

(3) Prime with undiluted BAL PRIME APD.

(4) Direct fixing in dry conditions only.

(5) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.

(6) Seal back face and edges with undiluted BAL BOND SBR.

(7) Check suitability of the grade of asphalt (flooring grade only).

(8) Prime with BAL PRIME APD, first coat 1:1 with water, second coat undiluted 90°C to the first.

(9) Check suitability for the intended purpose with the manufacturer.

(10) When used with BAL RAPID-MAT.

(11) May be used in conjunction with BAL RAPID-MAT.

Not recommended for use on paint, metal or existing glazed tiles.

Note:

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

(b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL SUPERCOR RAPID FLEX is sulphate resistant.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

#### SUITABLE SURFACES include:

##### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

##### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

##### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

##### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

## BAL QUICKSET RENDER: 2 hours

### Overlaid timber floors (min. 15mm)

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

### Tongued and grooved floorboards with BAL RAPID-MAT

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material. If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced sufficiently flat (SR1).

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

– BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or

– BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data

Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Undertile electrical heating systems

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	3mm – 30mm	3 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors – Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 2.5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
15kg	Wall & Floor Tiling	5.4 – 6.4 litres

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 45 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.



## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
External Walls and Floors	<b>BAL THICK BED SOLID BED</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 2 - 6mm or up to 12mm in limited, localised areas.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity/atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer. Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 3 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# supercover rapidset

## High yield tile adhesive for walls and floors

### DESCRIPTION

Rapid-setting, polymer-modified, water/frost-resistant cementitious tile adhesive for walls and floors. BAL 'Go Greener' range of environmentally responsible adhesives.

### Use for

- Fixing ceramics, porcelain and vitrified tiles, mosaics, certain natural stones, terrazzo, rigid foam insulating materials and brick slips in dry or wet interior and exterior environments.

NOTE: Certain types of natural stone (i.e. limestone, marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAL rapid-setting white adhesive is recommended i.e. BAL RAPIDSET FLEXIBLE FIBRE WHITE. Do NOT use BAL SUPERCOVER RAPIDSET for translucent or water sensitive stone.

- Recommended for large format wall tiles.
- Recommended for showers.

### Restrictions: NOT suitable for

- Metal, painted, Glass/metal tiles with water-sensitive coating on back, plywood walls\*, tiling to existing glazed tiles\* and areas of total immersion in water e.g. swimming pools.

*\*Further applications possible by adding BAL ADMIX AD1 to provide flexibility, increased adhesion and reduce water permeability. This enables use onto glazed surfaces.*

### PRODUCT INFORMATION

**Composition:** Rapid-setting polymer-modified high yield cement-based powder.

**Colours:** Grey.

**Type/Classification:** Exceeds BS EN 12004 C1FT – Cementitious Adhesive with Normal Characteristics, Fast Setting, Reduced Slip.

**Pack sizes:** 15kg

### Key Features:

- Extended open times of 20 minutes.
- Pot life of 45 minutes.
- Suitable for porcelain tiles.
- Use on walls and floors.
- Highly water/frost resistant.

**Grout after:** 2 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior (12)	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(5)	✓
Swimming Pools (b)(12)	✓	Heated Screeds (9)(11)(12)	✓
Hydrotherapy Pools (b)(1)(12)	✓	Limited Movement / Vibration (11)(12)	✓

### BACKGROUNDS / BASES

Brick/Concrete (2)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(4)(12)	✓
Cement:Sand Screed (11)	✓
Plaster (3)(5)	✓
Plasterboard (5)(12)	✓
Tile Backer/Fibre Cement Boards (9)(12)	✓
Glazed/Unglazed Ceramic Tiles / Hard Natural Stone (11)(12)	✓
Timber Floors (10)(12)	✓
Overlaid Timber Floors – 15mm min. (5)(6)(11)(12)	✓
Vinyl Tiles/Sheets (12)(13)	✓
Mastic Asphalt (7)	✓
Anhydrite/Calcium Sulfate Screeds (8)(11)	✓
Plywood (Walls) (6)(8)(12)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness ^	Open Time	Pot Life	Setting Time**
2- 6mm	20 mins	45 mins	2 hours

\*\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

^ Up to 12mm in areas of limited extent. Use minimum 3mm for floor tiling.

### COVERAGE

Area	Trowel	Coverage ^^
Dry Wall	Mosaic	0.96m <sup>2</sup> /kg
Dry Wall	Round Notched	0.64m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.52m <sup>2</sup> /kg
Exteriors / Floors	Thick Bed Solid Bed	0.4m <sup>2</sup> /kg

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured adhesive.

- Tiles must be grouted using BAL EASYPOXY AG.
- Provided the surface is sufficiently flat.
- Prime with undiluted BAL PRIMER.
- Direct fixing in dry conditions only.
- In wet conditions tank out with BAL TANK-IT or BAL WATERPROOFING KIT FOR SHOWERS.
- Seal back face and edges with undiluted BAL BOND SBR.
- Check suitability of the grade of asphalt (flooring grade only).
- Prime with BAL PRIMER, first coat 1:1 with water, second coat undiluted 90°C to the first.
- Check suitability for the intended purpose with the manufacturer.
- When used with BAL RAPID-MAT.
- May be used in conjunction with BAL RAPID-MAT.
- When modified with BAL ADMIX AD1, Pre-diluted 1:1 with water
- Alternatively, prime with undiluted BAL BOND SBR and allow to dry, fix tiles within 24 hours with BAL SUPERCOVER RAPIDSET.

**Not recommended for use on paint, metal.**

### Note:

- Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4
- Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4 BAL SUPERCOVER RAPIDSET is sulphate resistant.

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

*In shower areas:* waterproof background with BAL TANK-IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM.

### SUITABLE SURFACES include:

#### Asphalt (suitable grade e.g. flooring)

Must be of a suitable grade, be clean, in sound condition (without brittleness, softening. etc.) and have adequate cohesive strength, a natural float finish and laid on a firm rigid base.

Ensure that surface is sufficiently regular to suit bedding depths of adhesive.

Clean thoroughly to remove surface dirt using warm water and a suitable detergent. Remove all detergent residues with clean water.

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks\*
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

*\*If BAL Rapid-mat is used, this may be fixed when the screed is sufficiently strong enough to receive foot traffic*

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.**

### BAL QUICKSET RENDER: 2 hours

#### Overlaid timber floors (min. 15mm)

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade e.g. marine plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

#### Tongued and grooved floorboards with BAL RAPID-MAT

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. Before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling using BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT. See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

#### Anhydrite/calcium sulfate and hemi-hydrate screed

Allow the screed to dry out in accordance with manufacturer's instruction example: moisture content below 0.5% w/w or 75% RH (Relative Humidity). Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations. Remove all dust and loose material e.g. by vacuum etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or
- BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material. If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush.

The plaster must always be primed with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

#### Plywood walls (internal dry areas only)

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL (TAS)

### Dense concrete/blockwork walling

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

### Lightweight blockwork/walling

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1) before priming with 2 coats of (second coat applied at 90° to the first):

– BAL PRIME APD diluted 1:1 with clean water and second coat undiluted or

– BAL BOND SBR diluted 1:4 with clean water and second coat diluted 1:2 with clean water.

Allow each coat of primer to dry.

NOTE: Only suitable for internal dry environments unless rendered.

### Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For wall ensure existing tiles/stone are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

*N.B. Suitable for existing glazed tiles/brickwork when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

### Existing vinyl tiles

Ensure these are in good sound condition and securely bonded to their base.

Remove loose or damaged tiles/areas of sheet along with any loose or soft adhesive.

Remove any polishes, wax, grease etc. with a suitable proprietary cleaner.

Prime Surface with undiluted BAL BOND SBR all allow to dry. Fix tiles within 24 hours.

*Alternatively modify with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

NOTE: Cushioned types of flooring are not suitable and must be completely removed along with the adhesive residue prior to tiling.

### Fibre reinforced cement boards and lightweight tile backer boards

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical

Data Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plasterboard (If required)

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard are dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Undertile electrical heating systems

*Suitable when adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Can be used onto electrical undertile heating systems encased within an appropriate BAL leveller. Over suitable boards/exterior grade plywood overlays (minimum 15mm thickness) use BAL LEVEL MAX.

BAL LEVELLER	THICKNESS	SETTING TIME
BAL LEVEL MAX	2mm – 80mm	3 hours
BAL ACRYBASE	Up to 20mm	3 – 4 hours

*See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.*

### Heated Screeds

*When adhesive has been modified with BAL ADMIX AD1 (pre-diluted 1:1 by volume with clean cold water).*

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### BAL RAPID-MAT

Uncoupling matting for fast track tiling onto problematic floors

– Protecting floor tiling against reflective cracks, fractures and other damage caused by stresses and lateral movement in the substrate.

– Suitable for most problematic floor substrates including timber floors, new screeds and floors with under-tile heating systems.

– Suitable for most tile types including natural stone and mosaics.

See BAL TECHNICAL DATA SHEET for further information on suitable surfaces and application.

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Add approximately 3 parts powder to 1.3 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed adhesive to stand for 2 minutes before re-mixing for 30 seconds.

Product Size	Usage	Approx., clean cold water required per size
15kg	Wall & Floor Tiling	6.0 – 6.5 litres

NOTE: *If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

Ready for immediate use. Pot life at 20°C: approx. 45 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperature=longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
External Walls and Floors	<b>BAL THICK BED SOLID BED</b>
Mosaics (up to 100x100mm tiles) including when used with BAL RAPID-MAT)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct contact of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall or floor surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. The adhesive may be applied in a bed thickness of 2 - 6mm or up to 12mm in limited, localised areas.

*If fixing large/heavily-patterned tiles, apply additional adhesive to tile reverse.*

2. *For mosaics:* using a rubber tile float, press mosaics into adhesive and beat into required position.

*For tiles:* press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer). Discard any adhesive that has begun to set. Do not add further water.

4. Occasionally lift a mosaic/tile to check adhesive contact area. When solid-bed fixing, leave no voids behind tiles.

5. Leave adequate joints between individual tiles. Install movement joints to BS 5385, Parts 1-5.

6. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Wait minimum 2 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

*If using paper-faced mosaics:* Pre-grout sheet and remove surplus. Place in position and tap down to achieve full contact with adhesive. Ensure joints between sheets match joints between mosaic tesserae (i.e. staggered). Wet paper and carefully remove before adhesive fully hardens. Clean off surplus adhesive and grout from mosaic face. Finish grouting.

2. Fill movement joints with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. *However*, do NOT use on sensitive surfaces that could react to acetic acids released during cure.

*For intermediate movement joints*, a more durable hard wearing material may be needed e.g. an Epoxy polysulphide sealant or a suitable pre-formed movement joint strip.

NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# tank-it

## The complete fast-track system for waterproofing

### DESCRIPTION

Rapid-setting, rapid-drying, two-part, highly polymer-modified, waterproof cementitious based system for walls and floors. Tile after 90 minutes

#### Use for

- Providing a complete and easy to use waterproofing system for the protection of substrates (when used powder mixed with liquid) prior to fixing wall and floor tiles in dry or wet interior and exterior environments. NOTE: Corners/edges must be reinforced with BAL TANK-IT TAPE.
- Suitable for areas of total immersion such as swimming pools.
- Suitable for areas where/limited movement may occur (e.g. around drainage channels, junctions between walls/floors), and for preventing water penetration through suspended floors.

The system will fully seal walls and floors and is ideal in association with an approved design for:

- Heavy Duty Showers and Power Showers
- Wet Rooms
- Swimming Pools\*
- Hydrotherapy Pools\*
- Spa Pools\*
- Fountains\*
- Water Features\*
- Terraces\*
- Balconies\*

*\*Further technical guidance may be required prior to the use in these installations to ensure they are incorporated as part of an approved construction. Please contact the BAL TECHNICAL ADVISORY SERVICE for free advice.*

#### Restrictions: NOT suitable for

Do NOT use as a DPM (Damp Proof Membrane), Do NOT use as a wearing surface.

BAL TANK-IT should not be exposed / submerged to water without a suitable covering such as tiles.

#### PRODUCT INFORMATION

**Composition:** Rapid setting cement based powder with liquid polymer.

**Colours:** Dark grey.

**Type/Classification:** Exceeds BS EN 14891:2012

**Pack sizes:** 5kg Powder and 5ltr Liquid. 20m Tape.

#### Key Features:

- Simple, easy to apply two-part mix.
- Total waterproof protection.
- Ideal for power showers, wet rooms, total immersion areas or external areas.
- Rapid-setting; allows tiling in 90 minutes.
- Weight allowance for tiling dependent on weight tolerance of background/substrate.

**Tile after:** 90 minutes (at 20°C).

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior (8)	✓
Dry	✓	Wet	✓
Swimming Pools (b)(8)	✓	Showers (a)	✓
Hydrotherapy Pools (b)(1)(8)	✓	Heated Screeds (5)(7)	✓
Limited Movement / Vibration (7)(8)	✓		

### BACKGROUNDS / BASES

Brick/Concrete (2)(3)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(8)	✓
Cement:Sand Screed (7)	✓
Plaster	✓
Plasterboard	✓
Tile Backer/Fibre Cement Boards (5)(7)	✓
Glazed/Unglazed Ceramic Tiles / Hard Natural Stone (7)	✓
Timber Floors (6)	✓
Overlaid Timber Floors - Water resistant boards (8)	✓
Plywood (Walls) (4)(8)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Pot Life	Setting Time**
0.5mm per coat (1mm max)	45 minutes	90 minutes

\*\* Setting time will be extended in colder temperatures, when applied to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Pack size	Coverage ^^
5kg Powder	0.73m <sup>2</sup> /kg (per 1mm thickness)
Used with 5L Liquid	

^^ May vary dependent on nature and flatness of surface, and on trowel used.

(1) Tiles must be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Must be skimmed using adhesive or rendered in wet areas and external.  
 (4) Seal back face and edges with undiluted BAL BOND SBR.  
 (5) Check suitability for the intended purpose with the manufacturer.  
 (6) When used with BAL RAPIDMAT  
 (7) Contact BAL TECHNICAL ADVISORY SERVICE for guidance.  
 (8) Further technical guidance may be required.

**Note:**  
 (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface regularity is required to SR1 or better. Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

### Falls & Drainage

The floor substrate must be laid to the correct falls as recommended in BS 5385: Part 4. Gradients between 1:80 and 1:35 are recommended. Falls of 1:80 should be the minimum; gradients steeper than 1:35 might be inconvenient and even dangerous. The drainage rate of the gulley/drain must exceed the flow rate of the water source i.e. shower head.

#### SUITABLE SURFACES include:

##### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1 or better), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods.

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks
- Cement:sand rendering: 2 weeks (3 weeks for swimming pools)

##### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours

**BAL QUICKSET RENDER:** 2 hours

#### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

#### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. In limited areas apply a skim coat using BAL RAPIDSET FLEXIBLE FIBRE or BAL QUICKSET RENDER for large areas or external. Ensure the walls are sufficiently flat (SR1 or better).

Allow to dry before applying BAL TANK-IT.

NOTE: Only suitable for internal environments unless rendered.

*Important information: the use of wooden substrates in wet areas should be avoided. Ideally, on walls; wood based sheets or boards should be replaced or over boarded using a suitable tile backing board before applying BAL TANK-IT. Timber-based sheets and boards are not recommended for use in commercial showers etc.*

#### Plywood walls - Internal only

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### Overlaid timber floors (min. 15mm) – Internal

Please refer to section on falls and Drainage for required falls. Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Alternatively overlay using a suitable tile backing board of a minimum thickness of 10mm or as per the board manufacturer's recommendations

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

For further advice or for application in external areas, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

#### Tongued and grooved floorboards with BAL RAPID -MAT - Internal only

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc.

before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling such as BAL LEVEL MAX and allow drying before installing BAL RAPID-MAT.

#### Plaster (finish coat only) – Internal only

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush and remove any surface dust.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

### **Glazed/Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone**

For walls ensure that existing tiles/stone are soundly bonded to a stable background and are sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or BAL QUICKSET CEMENT, 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

### **Fibre reinforced cement boards and lightweight tile backer boards**

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude. Do NOT seal or prime surfaces to be tiled. IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

### **Undertile electrical heating systems**

Can be used onto electrical undertile heating systems encased within a suitable BAL leveller such as BAL LEVEL MAX.

### **Heated Screeds**

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### **MIXING**

Use a BAL MIXING BUCKET or other suitable bucket.

The full system requires two separate mixes as stated below. For each mix:

1. Pour a quarter bottle of BAL TANK-IT LIQUID 5L into the empty bucket (1.25L of liquid), using the measuring indicators on the bottle for assistance.
2. Add half a bag of BAL TANK-IT POWDER 5KG (2.5kg of powder) to the liquid.
3. Mix until a lump free consistency is achieved.
4. Once mixed add a further quarter bottle (1.25L) from the opened bottle to the mixed product and mix for a further 1 minute.
5. Leave to stand for a 2 minutes before re-mixing for 30 seconds.

Repeat the above step when mixing the remaining 2.5kg powder and 2.5L liquid for the second coat.

*Note: The bucket will always need to be cleaned thoroughly using clean water for further use before the product sets.*

*Note: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

Ready for immediate use. Pot life at 20°C: approx. 45 minutes.

NOTE: Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperature=longer.

### **Plasterboard (If required) - Internal only**

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter then leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### **APPLICATION/USAGE**

Do NOT use in temperatures below 5°C or in damp conditions.

### **Tool recommendations**

To Apply	To Finish (must be 0.5mm thickness per coat)
4mm x 4mm Notched Trowel	Floating Trowel
Floating Trowel	Floating Trowel
Brush Applied (more than one coat maybe required)	Brush Applied (more than one coat maybe required)
Roller Applied (more than one coat maybe required)	Roller Applied (more than one coat maybe required)

NOTE: ensure you achieve the correct contact over the area and no voids present. It must be applied in two coats at a thickness of 0.5mm when wet to BS EN 14891 2012 i.e. 1mm thickness when both coats are dry.



### Application procedure

1. Before mixing apply the self-adhesive BAL TANK-IT TAPE at: Internal and external corners of walls/partitions. Wall junctions with base/upstands/columns. At pipe penetration points/drainage channels/outlets. Junctions of different base/background materials. Cracks and joints in backgrounds.
2. Apply the first mixed product to the walls and floor using the 4mm x 4mm notched trowel or other tool recommendations (see table above), consider the pot life when using the product.
3. Before the surface is dry, using the floating trowel (see table above), the ribs must be flattened to a thickness of 0.5mm. The product must be applied to the full height of the wet area and to the floor where tiles are used and exposed to water. Leave to dry for approx. 30 minutes until touch dry before applying the second mix.
4. Repeat the mixing and application in the same way (see MIXING instructions).
5. Apply the second mixed product to the same areas; spreading to a thickness of 0.5mm (total thickness for both coats 1mm is required for waterproofing).
6. Leave until touch dry, for approx. 60 minutes.
7. The area will now be ready to begin tiling using the correct BAL Adhesive. See BAL TECHNICAL DATA SHEET for further information or contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

Once the tiling is completed:

If completing a shower, do NOT use shower for at least 2 weeks after completion of the grouting (as required by BS 5385: Part 4).

If completed a swimming pool, do not fill pool for at least 3 weeks after completion of grouting (as required by BS 5385: Part 4).

### HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

#### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

#### POWERSPEC

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#### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

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*Contact BAL Marketing Department for full details.*

#### CONDITIONS OF SALE

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd



# waterproofing kit for showers

## The complete ready-mixed kit for waterproofing

### DESCRIPTION

Ready-mixed, flexible, seamless tanking kit comprising an acrylic-based primer, an acrylic-based coating, polyester tape and matting.

#### Use for

A complete and easy to use waterproofing kit for the protection of water-sensitive backgrounds/bases (when used as part of tanking system). Suitable for use in internal domestic and commercial situations prior to fixing wall and floor tiles. For larger sizes use BAL WP1 TANKING SYSTEM.

**NOTE:** Corners/edges must be reinforced with BAL POLYESTER TAPE and all floors reinforced with BAL POLYESTER MATTING.

- Suitable for areas where movement may occur (e.g. around drainage channels, junctions between walls/floors), and for preventing water penetration through suspended floors.
- Recommended for showers/bathrooms/kitchens/laundry and utility rooms, and around drainage/upstands/pipes/floor wastes.

#### Restrictions: NOT suitable for

- Do NOT use as a DPM (Damp Proof Membrane), Do NOT use as a wearing surface.
- BAL WATERPROOFING KIT FOR SHOWERS should not be exposed / submerged to water without a suitable covering such as tiles.

- Total immersion
- **Note: the use of timber sheets and boards in wet areas is not recommended. For information, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.**

### PRODUCT INFORMATION

**Composition:** Acrylic-based primer and coating, with polyester tape and matting..

**Colours:** Light Grey.

**Type:** Internal use only

**Pack sizes:** Kit – 5kg

4.5 kg WP1 COATING

500ml BAL PRIMER APD

5m BAL POLYESTER TAPE

1m<sup>2</sup> BAL POLYESTER MATTING

#### Key Features:

- Simple, easy to apply ready-mixed coating.
- Total waterproof protection for internal locations.
- Ideal for power showers, wet rooms.

**Tile after:** Minimum 24 hours (depending on thickness and site conditions).

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✗
Dry	✓	Wet (1)(8)	✓
Swimming Pools	✗	Showers (a)	✓
Internal Domestic	✓	Internal Commercial	✓

### BACKGROUNDS / BASES

Brick/Concrete (2)(3)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(8)	✓
Cement:Sand Screed (7)	✓
Plaster	✓
Plasterboard	✓
Tile Backer/Fibre Cement Boards (5)(7)	✓
Glazed/Unglazed Ceramic Tiles / Hard Natural Stone (10)	✓
Timber Floors (6)(8)	✓
Overlaid Timber Floors (8)(9)	✓
Plywood (Walls) (4)(8)(9)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Setting Time**
1mm max per coat	24 hours min.

\*\* Setting time will be extended in colder temperatures, when applied to impervious backgrounds.

### COVERAGE

Pack size	Coverage <sup>^^</sup>
1 x 5kg Kit	2.7 m <sup>2</sup> – 3.15m <sup>2</sup>

<sup>^^</sup> May vary dependent on nature and flatness of surface, and on trowel used.

### COVERAGE

Usage (primer)	500ML Bottle <sup>^^^</sup>
Undiluted	2.5m <sup>2</sup> – 5m <sup>2</sup>

<sup>^^^</sup> May vary dependent on the porosity of surface, and on application.

- (1) Tiles may be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Must be skimmed using adhesive or rendered in wet areas.  
 (4) Seal back face and edges with undiluted BAL BOND SBR.  
 (5) Check suitability for the intended purpose with the manufacturer.  
 (6) When used with BAL RAPIDMAT, NO primer required.  
 (7) May be used with BAL RAPIDMAT and no primer required.  
 (8) Further technical guidance may be required.  
 (9) Overlay with suitable tile backing board as recommended by the board manufacturer.  
 (10) Must be skimmed first with BAL MAX FLEX FIBRE and left to dry.

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

Before tanking, make good any uneven areas in the background/base.

Fill voids or gaps with suitable filler/adhesive or sealant, and allow to cure.

Bridge static gaps up to 1.5mm with BAL POLYESTER MATTING or TAPE.

### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

### Falls & Drainage

The floor substrate must be laid to the correct falls as recommended in BS 5385: Part 4. Gradients between 1:80 and 1:35 are recommended. Falls of 1:80 should be the minimum; gradients steeper than 1:35 might be inconvenient and even dangerous. The drainage rate of the gulley/drain must exceed the flow rate of the water source i.e. shower head.

### SUITABLE SURFACES include:

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods.

Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks
- Cement:sand rendering: 2 weeks

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

\*\*1 part dry sand to 1 part BAL QUICKSET CEMENT by weight,

mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.

**BAL QUICKSET RENDER:** 2 hours

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. In limited areas apply a skim coat using BAL RAPIDSET FLEXIBLE FIBRE or BAL QUICKSET RENDER for large areas. Ensure the walls are sufficiently flat (SR1). Allow to dry before applying BAL WATERPROOFING KIT FOR SHOWERS.

NOTE: Only suitable for internal environments.

*Important information: the use of timber boards and sheets should be avoided if possible in wet conditions. Ideally, on walls; wood based sheets or boards should be replaced or over boarded using plasterboard or a suitable tile backing board before applying BAL WATERPROOFING KIT FOR SHOWERS. Timber-based sheets and boards are not recommended for use in commercial/ power showers etc.*

### Plywood walls (internal dry areas only) - Internal only See Note\*

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Overlaid timber floors (min. 15mm) – Internal See Note\*

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Alternatively overlay using a suitable tile backing board of a minimum thickness of 10mm or as per the board manufacturer's recommendations

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

**For further advice, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.**

### Tongued and grooved floorboards with suitable uncoupling mat - Internal only See Note\*

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
  - BAL BOND SBR (diluted 1:2 by volume with clean water)
- Allow each coat of primer to dry.

If necessary the floor may require levelling using a suitable BAL leveller such as BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT, once the mat is applied, BAL WATERPROOFING KIT FOR SHOWERS can be applied over the mat once the adhesive is dry. No priming required when applying onto BAL RAPID-MAT.

### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

Weight restrictions for tiling i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Plaster (finish coat only) – Internal only

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush and remove any surface dust.

Weight restrictions for tiling onto plaster walls i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Plasterboard (If required) - Internal only

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter then leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Glazed/Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For walls ensure that existing tiles/stone are soundly bonded to a stable background and are sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or BAL QUICKSET CEMENT, 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

Before applying, the surface must be skimmed with BAL MAX-FLEX FIBRE or BAL RAPIDSET FLEXIBLE FIBRE with BAL ADMIX AD1 (1 part BAL ADMIX AD1 to 3 parts clean cold water).

Weight restrictions will depend on the background, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Some boards may require priming, prior to tiling with a cementitious based tile adhesive. Use a suitable primer from the BAL range. Please refer to the relevant BAL Technical Data

Sheets for further information.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

Weight restrictions will depend on the background, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Undertile electrical heating systems

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Tool recommendations

To Apply	To Finish (maximum 1mm per coat)
Brush Applied (more than one coat maybe required)	Brush Applied (more than one coat maybe required)
Roller Applied (more than one coat maybe required)	Roller Applied (more than one coat maybe required)
Steel Floating Trowel	Steel Floating Trowel

### Application procedure

1. Prime all surfaces with BAL PRIME APD and allow to dry (15-30mins), apply second coat 90° to the first. Allow to dry between coats.
2. Using a suitable brush or steel float, apply BAL WATERPROOF COATING at:
  - Internal and external corners of wall/partitions.
  - Wall junctions with bases/upstands/columns.
  - At pipe penetration points/drainage channels/outlets and pipes.
  - Junction of different bases/backgrounds materials.
  - Crack and joints in background/base.
3. Reinforce with BAL POLYESTER TAPE.
4. Apply second coat of BAL WATERPROOF COATING over the BAL POLYESTER TAPE.
5. Using brush or steel float, apply BAL WATERPROOF COATING to primed walls at a max. 1mm thickness.
6. Apply BAL WATERPROOF COATING to primed floor.
7. Floor areas, reinforce with BAL POLYESTER MATTING (may be cut to correct size with scissors).
8. Bed matting into coating and apply a second layer of BAL WATERPROOF COATING over the top.
9. Allow membrane to dry for minimum 24 hours before tiling.

When dry, BAL WATERPROOF COATING is suitable for BAL ready-mixed adhesive such as BAL WHITE STAR PLUS, (walls only) or cementitious powder adhesives. No priming required on to the BAL WATERPROOF COATING.

Note: For further information on drying times, see BAL PRODUCT TECHNICAL DATA SHEET.

## **HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

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*Contact BAL Marketing Department for full details.*

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# wp1 tanking system

## The complete ready-mixed system for waterproofing

### DESCRIPTION

Ready-mixed, flexible, seamless tanking system comprising an acrylic-based primer, an acrylic-based coating, polyester tape and matting.

#### Use for

A complete and easy to use waterproofing system for the protection of water-sensitive backgrounds/bases (when used as part of tanking system). Suitable for use in internal domestic and commercial situations prior to fixing wall and floor tiles.

**NOTE:** Corners/edges must be reinforced with BAL POLYESTER TAPE and all floors reinforced with BAL POLYESTER MATTING.

- Suitable for areas where movement may occur (e.g. around drainage channels, junctions between walls/floors), and for preventing water penetration through suspended floors.
- Recommended for showers/bathrooms/kitchens/laundry and utility rooms, and around drainage/upstands/pipes/floor wastes.

#### Restrictions: NOT suitable for

- Do NOT use as a DPM (Damp Proof Membrane), Do NOT use as a wearing surface.
- BAL WP1 TANKING SYSTEM should not be exposed / submerged to water without a suitable covering such as tiles.
- Exterior use.

- Total immersion

**Note: the use of timber sheets and boards in wet areas is not recommended. For information, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.**

### PRODUCT INFORMATION

**Composition:** Acrylic-based primer and coating, with polyester tape and matting..

**Colours:** Light Grey.

**Type:** Internal use only

**Pack sizes:** WP1 TANKING SYSTEM

8 kg WP1 COATING

2.5L BAL PRIMER APD

5m and 50m BAL POLYESTER TAPE

1m<sup>2</sup> and 50m<sup>2</sup> BAL POLYESTER MATTING

#### Key Features:

- Simple, easy to apply ready-mixed coating.
- Total waterproof protection for internal locations.
- Ideal for small and large power showers, wet rooms.

**Tile after:** Minimum 24 hours (depending on thickness and site conditions).

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✗
Dry	✓	Wet (1)(8)	✓
Swimming Pools	✗	Showers (a)	✓
Internal Domestic	✓	Internal	✓
		Commercial	

### BACKGROUNDS / BASES

Brick/Concrete (2)(3)	✓
Rendering	✓
Lightweight Blockwork (2)(3)(8)	✓
Cement:Sand Screed (7)	✓
Plaster	✓
Plasterboard	✓
Tile Backer/Fibre Cement Boards (5)(7)	✓
Glazed/Unglazed Ceramic Tiles / Hard Natural Stone (10)	✓
Timber Floors (6)(8)	✓
Overlaid Timber Floors (8)(9)	✓
Plywood (Walls) (4)(8)(9)	✓

### USAGE: Bed Thickness / Time at 20°C

Bed Thickness	Setting Time**
1mm max per coat	24 hours min.

\*\* Setting time will be extended in colder temperatures, when applied to impervious backgrounds.

### COVERAGE

Pack size	Coverage ^^
1 x 8kg BAL WP1 COATING	4.8 m <sup>2</sup> – 5.6 m <sup>2</sup>

^^ May vary dependent on nature and flatness of surface, and on trowel used.

### COVERAGE

Usage (primer)	2.5 L Bottle ^^^
Undiluted	12.5m <sup>2</sup> - 25m <sup>2</sup>

^^^ May vary dependent on the porosity of surface, and on application.

- (1) Tiles may be grouted using BAL EASYPOXY AG.  
 (2) Provided the surface is sufficiently flat.  
 (3) Must be skimmed using adhesive or rendered in wet areas.  
 (4) Seal back face and edges with undiluted BAL BOND SBR.  
 (5) Check suitability for the intended purpose with the manufacturer.  
 (6) When used with BAL RAPIDMAT, NO primer required.  
 (7) May be used with BAL RAPIDMAT and no primer required.  
 (8) Further technical guidance may be required.  
 (9) Overlay with suitable tile backing board as recommended by the board manufacturer.  
 (10) Must be skimmed using BAL MAX FLEX FIBRE and left to dry.

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

Before tanking, make good any uneven areas in the background/base.

Fill voids or gaps with suitable filler/adhesive or sealant, and allow to cure.

Bridge static gaps up to 1.5mm with BAL POLYESTER MATTING or TAPE.

### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface.

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive
SR2	5mm	For tiles & slabs bedded in a cement: sand mortar or a suitable tile adhesive (see the manufacturer's recommendations)
SR3	10mm	For tiles & slabs bedded in a cement:sand semi-dry mix.

### Falls & Drainage

The floor substrate must be laid to the correct falls as recommended in BS 5385: Part 4. Gradients between 1:80 and 1:35 are recommended. Falls of 1:80 should be the minimum; gradients steeper than 1:35 might be inconvenient and even dangerous. The drainage rate of the gulley/drain must exceed the flow rate of the water source i.e. shower head.

### SUITABLE SURFACES include:

#### Concrete; cement:sand screeds and rendering

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods. Allow the following minimum drying times:

- Concrete/concrete block walls/clay brickwork: 6 weeks
- Cement:sand screed: 3 weeks
- Cement:sand rendering: 2 weeks

#### BAL QUICKSET CEMENT:sand screeds and rendering

- Bonded screeds: 4 hours\*\*
- Unbonded/floating screeds: 48 hours
- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

\*\*1 part dry sand to 1 part BAL QUICKSET CEMENT by weight,

mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency.

**BAL QUICKSET RENDER:** 2 hours

### Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. In limited areas apply a skim coat using BAL RAPIDSET FLEXIBLE FIBRE or BAL QUICKSET RENDER for large areas. Ensure the walls are sufficiently flat (SR1). Allow to dry before applying BAL WP1 TANKING SYSTEM. NOTE: Only suitable for internal environments.

*Important information: the use of timber boards and sheets should be avoided if possible in wet conditions. Ideally, on walls; wood based sheets or boards should be replaced or over boarded using plasterboard or a suitable tile backing board before applying BAL WP1 TANKING SYSTEM.*

**Timber-based sheets and boards are not recommended for use in commercial/ power showers etc.**

**Plywood walls (internal dry areas only) - Internal only See Note\***

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Overlaid timber floors (min. 15mm) – Internal See Note\*

Ensure timber floor (i) is sufficiently rigid and stable to receive tiles; (ii) can carry the additional static and dynamic load without excessive deflection; and (iii) has adequate ventilation under the timber.

Overlay existing timber floor with e.g. a suitable water resistant grade plywood, min. 15mm thick, screwed (not nailed) at 300mm centres.

Alternatively overlay using a suitable tile backing board of a minimum thickness of 10mm or as per the board manufacturer's recommendations

Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

**For further advice, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.**

### Tongued and grooved floorboards with suitable uncoupling mat - Internal only See Note\*

Ensure boards are flat (SR1) dry, rigid and securely fixed (screwed to joints at 300mm centres, including any cross-noggings, if necessary). Sand (abrade) surface and ensure any surface coatings removed, e.g. varnish, lacquers, etc. before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (undiluted) or
- BAL BOND SBR (diluted 1:2 by volume with clean water)

Allow each coat of primer to dry.

If necessary the floor may require levelling using a suitable BAL leveller such as BAL LEVEL MAX and allow to dry before installing BAL RAPID-MAT, once the mat is applied, BAL WP1 TANKING SYSTEM can be applied over the mat once the adhesive is dry. No priming required when applying onto BAL RAPID-MAT.



### Dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1).

Weight restrictions for tiling i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Plaster (finish coat only) – Internal only

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush and remove any surface dust.

Weight restrictions for tiling onto plaster walls i.e. a maximum weight of 20kg/m<sup>2</sup>.

### Plasterboard (If required) - Internal only

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter then leave to dry before fixing tiles.

Weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Glazed/Unglazed ceramic tiles, quarry tiles, terrazzo and natural stone

For walls ensure that existing tiles/stone are soundly bonded to a stable background and are sufficiently strong enough to support the weight of the new tiling.

For floors ensure that the existing finish is firmly adhered to the base.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or BAL QUICKSET CEMENT, 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

Before applying, the surface must be skimmed with BAL MAX-FLEX FIBRE or BAL RAPIDSET FLEXIBLE FIBRE with BAL ADMIX AD1 (1 part BAL ADMIX AD1 to 3 parts clean cold water). Weight restrictions will depend on the background, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for the tiling application and for relevant fixing instructions.

Weight restrictions will depend on the background, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Undertile electrical heating systems

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Heated Screeds

Suitable for sand/cement screeds with water fed underfloor heating encased within.

NOTE: For further information on other backgrounds and preparation, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Tool recommendations

To Apply	To Finish (maximum 1mm per coat)
Brush Applied (more than one coat maybe required)	Brush Applied (more than one coat maybe required)
Roller Applied (more than one coat maybe required)	Roller Applied (more than one coat maybe required)
Steel Floating Trowel	Steel Floating Trowel

### Application procedure

1. Prime all surfaces with BAL PRIME APD and allow to dry (15-30mins), apply second coat 90° to the first. Allow to dry between coats.
2. Using a suitable brush or steel float, apply BAL WATERPROOF COATING at:
  - Internal and external corners of wall/partitions.
  - Wall junctions with bases/upstands/columns.
  - At pipe penetration points/drainage channels/outlets and pipes.
  - Junction of different bases/backgrounds materials.
  - Crack and joints in background/base.
3. Reinforce with BAL POLYESTER TAPE.
4. Apply second coat of BAL WATERPROOF COATING over the BAL POLYESTER TAPE.
5. Using brush or steel float, apply BAL WATERPROOF COATING to primed walls at a max. 1mm thickness.
6. Apply BAL WATERPROOF COATING to primed floor.
7. Floor areas, reinforce with BAL POLYESTER MATTING (may be cut to correct size with scissors).
8. Bed matting into coating and apply a second layer of BAL WATERPROOF COATING over the top.
9. Allow membrane to dry for minimum 24 hours before tiling.

When dry, BAL WATERPROOF COATING is suitable for BAL ready-mixed adhesive such as BAL WHITE STAR PLUS, (walls only) or cementitious powder adhesives. No priming required on to the BAL WATERPROOF COATING.

Note: For further information on drying times, see BAL PRODUCT TECHNICAL DATA SHEET.

**HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

**TECHNICAL ADVISORY SERVICE**

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# micromax sealant

## Antimicrobial anti-mould silicone sealant

### DESCRIPTION

Unique high performance ready to use silicone sealant with built-in Microban® antimicrobial protection for walls and floors.

#### Use for

- Sealing movement joints in FLOOR and WALL installations. For surface including sanitary, acrylic, fiberglass, glass, glazed, porcelain and painted in dry and wet interior and exterior environments.
- Correctly used and applied the bond obtained will be unaffected by weathering, UV radiation and immersion in water.

#### Restrictions: NOT suitable for

- Aquariums. Swimming pools\*, Concrete<sup>^</sup> and Natural stone.

\* Suitable for swimming pools when used with the specified silicone priming system.

<sup>^</sup> Prime using BAL PRIME APD and allow drying.

### PRODUCT INFORMATION

**Composition:** Ready to use acetoxycuring silicone sealant with built-in Microban®.

**Colours:** White, Manilla, Gunmetal, Pebble, Jasmine, Ebony, Smoke, Chocolate, Cocoa, Anthracite and Snow. Additional 'Inspiration' collections available at Topps Tiles only, including: Ash, Lime, Cement, Pecan, Cedar, Coffee, Antique White and Praline.

**Type/Classification:** Exceeds ISO 11600 and BS 5889 Type B requirements.

**Pack sizes:** 310ml cartridge

#### Key Features:

- Built-in Microban® antimicrobial protection
- Waterproof
- Excellent adhesion

**Set in:** 24 hours (per 4mm thickness)

**When fully cured:** Wide service temperature range (-50°C to +200°C). Unaffected by weather, UV radiation or water immersion.

Microban® antimicrobial protection: inhibit growth of bacteria (e.g. Listeria, Salmonella, E-Coli) and black mould. Provides added hygiene protection for bathrooms, showers and food consumption areas.

Active biocide used to treat the article:

2-Butyl-1,2-benzisothiazol-3-one.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor (3)	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✓	Showers (a)(1)	✓
Swimming Pools (b)(2)(4)	✗	Limited Movement / Vibration	✓

### APPLICATION AREAS

Leisure Centres	✓
Bathrooms	✓
Changing Rooms	✓
Restaurants/Food Consumption Areas	✓
Domestic Kitchens	✓
Shopping Malls	✓
Breweries	✓
Food/Drink Processing Plants	✓
Hospitals/Dental Practices /Veterinary Surgeries	✓
Clean Rooms	✓

### MIX/USAGE DATA

Application	Cure Time at 20°C **	Specific Gravity
Caulking Gun	24 hours	1.04/cm <sup>3</sup>

\*\* Drying time will be extended in colder temperatures, when applied on to low porosity surfaces.

### COVERAGE

Bead Size	Coverage ^^
6x6mm	2.83m/100ml

^^ Coverage may vary dependent on size of bead. Maximum bead size 25mm.

### TEMPERATURE RESISTANCE\*\*\*

-50°C to 200°C

\*\*\* Cured grout.

- (1) Tiles must be grouted using BAL EASYPOXY AG for Food preparation /storage areas power showers with body jets/Spas/Jacuzzis/Chemical Plants.  
 (2) Tiles must be grouted using BAL EASYPOXY AG for wave pools.  
 (3) Used on some floors depending on tile type and traffic, contact BAL TECHNICAL SERVICES.  
 (4) Suitable for swimming pools when used with the specified silicone priming system.  
 (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4.

## SURFACE PREPARATION

### General

For general information on construction of movement joints in tiling, reference should be made to BS5385: parts 1 – 5

Before sealing, ensure that:

The surfaces are clean, dry, and free from dust, grease and contaminants that affect adhesion.

- Non-porous surfaces should be degreased using white spirit or non-oily solvents.
- Wood should be painted.
- NOT suitable for use in Aquaria with lime-based cements and mortars or copper based metals. Do not apply to wet surfaces.
- May also be specified for swimming pools and similar wet duty situations provided that the recommended primer is used and that the sealant is given adequate time (at least 7 days) to cure throughout before wetting or immersion in water.

### APPLICATION

#### Sealant procedure

**Recommended maximum joint with depth: 6mm. For Movement joints or most applications, use in 6x6mm cross section.**

1. Cut off tip of cartridge, ensuring there is enough screw thread to attach the nozzle.
2. The cartridge nozzle should be cut to the required width and angle.
3. Place cartridge in caulking gun and apply steady bead of BAL MICROMAX SEALANT to required area.
4. The surface of the sealant should be tooled to a slightly concave finish within 10 minutes of application.
5. Smooth silicone with wet silicone tool/spatula or similar (NOTE: dilute soap or detergent solution may be used as tooling lubricants, but excessive use should be avoided as this may affect adhesion at the joint edges).
6. Tools should be cleaned immediately after use with a degreasing solvent
7. Masking tape must be removed immediately after tooling, before a skin forms on the surface of the sealant, to achieve a neat edge.
8. Allow to cure (approx. 24 hours per 4mm thickness).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

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# acrybase

## Self-smoothing Compound

### DESCRIPTION

Fast-hardening two-part (powder+liquid) self-smoothing compound.

#### Use for

- Laying on absorbent and non-absorbent substrates to prepare floor surfaces for installing ceramics, natural stone, sheet and soft furnishings in dry or wet interior and exterior environments.
- Recommended for heavily-trafficked areas and exterior floors.
- Floor depths: Feather-edge to 10mm or, with added 3mm granite chippings, 10-20mm.

#### IMPORTANT NOTE:

This product does NOT create a wearing surface.

#### PRODUCT INFORMATION

**Composition:** Two-part, acrylic-based, protein-free, self-smoothing compound.

**Colour:** Grey

**Pack sizes:** 23.5kg (powder) and 5 litre (liquid)

**Key features:** High strength and fast-hardening. Sets in 3 hours.

#### USAGE & SERVICE CONDITIONS

Floors	✓	Interior	✓
Exterior	✓	Dry	✓
Wet	✓		
Showers (a)			✓

#### BACKGROUNDS/BASES

Cement:Sand Screeds and Concrete with highly absorbent surface	✓
Cement:Sand Screeds and Concrete with low absorbency surface	✓
Cement:Sand Screeds with underfloor heating	✓
Hard floor surfaces	✓
Existing glazed ceramic tiles	✓
Anhydrite screeds	✓
Existing vinyl tiles	✓
Old adhesive residues	✓
Asphalt	✓

Usage: Bed-thickness/Time		
Bed-thickness	Pot Life	Setting Time*
0-20mm	30 mins	3-4 hours

\* Drying time will be extended in colder temperatures.

\*\* Can be walked on after 3-4 hours. 3mm thick bed ready to receive ceramic floor coverings after 4 hours.

Usage: Tools/Coverage	
Recommended Application Tool	Typical Coverage <sup>^</sup> at 3mm bed-thickness
Steel trowel	0.21m <sup>2</sup> /kg of powder <sup>^^</sup>

<sup>^</sup> May vary dependent on nature and flatness of surface, and thickness of application.

<sup>^^</sup> With Acrybase Liquid.

### PREPARATION

Ensure surfaces are dry, sound, and free from grease, dust and any other contamination.

All primed areas should be fully dry.

Ensure direct-to-earth sub-floors incorporate an effective dampproof membrane.

#### SUITABLE SURFACES include:

##### Asphalt (flooring grade)

Must be suitable grade for tiling; be clean and sound; and have adequate cohesive strength. No priming is needed.

##### Concrete; cement:sand screeds/anhydrite screeds

Must be fully cured and free from laitance, surface hardeners etc.

##### Absorbent cement:sand screeds and concrete

Prime with BAL PRIME APD or BAL PRIMER pre-diluted 1:1 with water.

##### Low-absorbent cement:sand screeds and concrete

Dampen with water before laying BAL ACRYBASE.

##### Anhydrite screeds

Prime with neat BAL PRIME APD or BAL PRIMER (2 coats).

### Existing ceramic tiles, quarry tiles, terrazzo and natural stone

Ensure these are firmly bonded.

Cut out and make good any hollow/defective areas.

### Old adhesive residues

Remove as much adhesive as possible.

Ensure all residual adhesive is soundly bonded.

No priming is needed.

### Cement:sand screeds with underfloor heating

Switch off heating for MINIMUM 48 hours before and after application.

Prime floor surface with BAL PRIME APD or BAL PRIMER pre-diluted 1:1 with water.

### Uneven Timber Floors (for soft floor finishes only)

Ensure sheets or boards are (i) dry, securely fixed and rigid; (ii) have adequate ventilation in voids beneath suspended timber floors at ground level.

Lay BAL ACRYBASE and allow to dry for 3 hours.

Screw down layer of 6-12mm plywood compliant with BS 6566 onto this levelled base.

NOTE: For further information on other substrates, contact BAL TECHNICAL ADVISORY SERVICE.

### MIXING

1. Pour all BAL ACRYBASE LIQUID (5 litre) into clean container.
2. Gradually add all BAL ACRYBASE POWDER (23.5kg) to liquid and mix until smooth mortar is achieved.

NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 30 minutes.

NOTE: working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Usage procedure

1. Pour mix over sub-floor and spread to required depth using steel trowel.

*If requiring 10-20mm depth:* bulk out mix with equal volume of 3mm granite chippings.

2. Trowel to achieve smooth surface.
3. Surface should be sufficiently smooth to receive floor coverings without further treatment.

*If any trowel marks remain:* rub down before compound has hardened.

4. Allow new floor surface to set. Dependent on thickness of application, this should be 3 hours. At 20°C and 3mm thickness, BAL ACRYBASE will be ready to receive ceramic tiles and natural stone floor coverings after 4 hours (or 24 hours for soft coverings).

### HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling. Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp. Store between 5°C and 30°C.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale.  
*Available on request.*

*For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB, England  
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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

# admix AD1

## Admixture for Wall and Floor Adhesives

### DESCRIPTION

Water-based polymer additive for cementitious wall and floor adhesives.

#### Use for

- Adding to BAL cementitious adhesives to improve physical properties and performance in dry or wet interior and exterior environments.
- Suitable for use with:
  - BAL GOLD STAR
  - BAL WALL & FLOOR PROFESSIONAL
  - BAL CTF3
  - BAL RAPIDSET
  - BAL SUPERCOVER RAPIDSET
  - BAL POURABLE THICK BED

#### Restrictions: NOT suitable for

- Use with highly polymer-modified cementitious adhesives and ready mixed products.

#### PRODUCT INFORMATION

**Composition:** Synthetic polymer emulsion.

**Pack sizes:** 3.5 litre and 2.5 litre

**Key features:** Improves adhesion and flexibility. Enhances physical properties and performance of adhesives. Ideal for use with porcelain tiles.

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Showers	✓		
Swimming Pools	✓		
Hydrotherapy Pools (3)	✓		
Heated Screeds	✓		
Limited Movement/Vibration	✓		

- (3) Tiles must be grouted with a BAL Epoxy grout e.g. BAL-EASYPOXY.  
 (4) Provided the surface is sufficiently flat.  
 (5) Prime with BAL-PRIME APD or BAL PRIMER.  
 (6) Direct fixing in dry conditions only.  
 (7) In wet conditions tank out with the BAL-WP1 TANKING SYSTEM.  
 (8) Use a BAL ready-mixed adhesive or BAL-FLEX, ensuring preparation of paint layer and painted surface abraded.  
 (9) Use BAL-FASTFLEX, ensuring preparation of paint layer and painted surface abraded.  
 (10) Flooring grade only.

#### Notes:

- 1 Do not use showers for at least 2 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.  
 2 Do not fill pools for at least 3 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.

#### BACKGROUNDS/BASES

Brick/Concrete (4)	✓
Rendering	✓
Lightweight Blockwork (4) (5) (6)	✓
Plaster (5) (7)	✓
Plasterboard (5) (7)	✓
Painted Walls (8)	✓
Epoxy Coatings (9)	X
Tile Backer Boards	✓
Floorboards	X
Anhydrite Screed (5) (7)	✓
Cement/Sand Screed	✓
Plywood Overlay (Floors – 15mm min.)	✓
Vinyl Tiles	✓
Ceramic Tiles/Hard Natural Stone	✓
Mastic Asphalt (10)	✓

Usage: Coverage	
BAL cement-based adhesive	Typical coverage <sup>^</sup> : volume (litres) of AD1 required for 20kg
CTF3	3.4
Gold Star	3.3
Rapidset	3.0
Supercover Rapidset	3.0 (for 15kg)
Pourable Thick Bed	2.4

<sup>^</sup> When used in conjunction with the appropriate BAL cement-based adhesive.

## SURFACE PREPARATION

### General

As recommended for the cement-based adhesive.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Usage procedure

1. Shake container well before use.
2. Dilute BAL ADMIX AD1, at a ratio of 1:1 with water – and mix thoroughly.
3. Add the BAL cementitious adhesive to the correct quantity of diluted liquid. Mix thoroughly until slump-free mortar achieved.

NOTE: Mortar consistency can be adjusted by slightly increasing or decreasing adhesive amount in mix (see mixing instructions on adhesive pack).

4. Clean surplus adhesive from tools/tiles before it dries.

NOTE: Setting time of adhesive that has been modified with ADMIX AD1 may be extended.

## HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

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### POWERSPEC

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and direct sunlight. Store between 5°C and 30°C.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

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**Admix AD1**



# admix GT1

## Admixture for Wall and Floor Grouts

### DESCRIPTION

Water-based polymer additive for cementitious wall and floor grouts.

#### Use for

- Adding to BAL cementitious grouts to improve physical properties and performance in dry or wet interior and exterior environments.
- Suitable for use with:
  - BAL GROUT
  - BAL WIDE JOINT GROUT
  - BAL MICROCOLOUR GROUT
  - BAL MICROCOLOUR WIDE JOINT GROUT

#### Restrictions: NOT suitable for

- Use with highly polymer-modified cementitious grouts and ready mixed products.

#### PRODUCT INFORMATION

**Composition:** Synthetic polymer emulsion.

**Pack sizes:** 2.5 litre and 1litre

**Key features:** Improves grout flexibility. Enhances physical properties and performance of grouts. Ideal for use with porcelain tiles.

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Showers	✓		
Swimming Pools	✓		
Hydrotherapy Pools	X		
Heated Screeds	✓		
Limited Movement/Vibration	✓		

(1) In wet conditions tank out with the BAL-WP1 TANKING SYSTEM.  
(2) Flooring grade only.

#### Notes:

Do not use showers for at least 2 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.  
Do not fill pools for at least 3 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.

#### BACKGROUNDS/BASES

Rendering	✓
Lightweight Blockwork	✓
Plasterboard (1)	✓
Epoxy Coatings	✓
Tile Backer Boards	✓
Floorboards	✓
Heated Anhydrite Screed (1)	✓
Heated Cement:Sand Screed	✓
Plywood Overlay (Floors)	✓

#### Usage: Coverage

BAL cement-based grout	Typical coverage <sup>^</sup> : volume (litres) of GT1 required for 10kg
BAL Grout	1.3 – 1.9
BAL Wide Joint Grout	0.8 – 1.2
BAL Microcolour Grout	0.9
BAL Microcolour Wide Joint Grout	0.75

<sup>^</sup> When used in conjunction with the appropriate BAL cement-based grout.

## SURFACE PREPARATION

### General

As recommended for the cement-based adhesive.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Usage procedure

1. Shake container well before use.
2. Dilute BAL ADMIX GT1, at a ratio of 1:2 with water – and mix thoroughly.

*If grouting in more demanding situations (e.g. tiling to timber floors), ratio 1:1 with water.*

3. Use diluted admixture to replace gauging water when preparing grout.
4. Clean surplus grout from tools/tiles before it dries.

NOTE: Working time of grout that has been modified with ADMIX GT1 may be extended. When set, the grout colour may appear slightly darker than when unmodified. To ensure uniform colour, use same mix proportions throughout installation.

## HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and direct sunlight. Store between 5°C and 30°C.

### QUALITY AND ENVIRONMENTAL STANDARDS

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[www.powerspeconline.com](http://www.powerspeconline.com)



**Admix GT1**

# bond SBR

## Multi-purpose bonding & priming agent for walls & floors

### DESCRIPTION

Multi-purpose synthetic polymer primer and admixture for walls and floors.

#### Use for

A water-based dispersion of a styrene-butadiene copolymer with a wide variety of uses in the construction industry, particularly as an admixture and bonding agent for cement and concrete applications. Once cured, the polymer is water frost resistant.

- Primer before tile fixing on timber, plaster, screeds, rendering or vinyl tiles.
- Slurry coat of cement or plaster mix for wall and floor backgrounds in dry and wet interior and exterior environments.
- Suitable for swimming pools.
- 

#### Restrictions: NOT suitable for

- Painted surfaces, existing non-porous surfaces (existing tiles), Epoxy coatings, some manufactured board systems (check with manufacturer first), use over BAL RAPID-MAT

#### PRODUCT INFORMATION

**Composition:** Water-based dispersion styrene-butadiene copolymer.

**Colours:** White.

**Pack sizes:** 1 litre, 5 litre

#### Key Features:

- Greater toughness, flexibility and tensile strength, allowing mortars to be applied in thinner sections, thus reducing the weight of the construction.
- Improved adhesion to backgrounds/bases.
- Greater resistance to water and water vapour.
- Greatly increased protection from water and salts.
- Greater resistance to impact.
- Reduced surface dusting.
- Improved working characteristics particularly valuable in hot, humid climates.

**Drying time:** 15-30 mins. (at 20°C)

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops (1)	✗	Showers (a)(4)	✓
Swimming Pools (b)	✓	Heated Screeds (8)	✓
Hydrotherapy Pools (b)(1)	✓	Limited Movement / Vibration (8)	✓

#### BACKGROUNDS / BASES

Brick/Concrete	✓
Rendering (10)	✓
Lightweight Blockwork (2)(3)	✓
Cement:Sand Screed (3)(8)(10)	✓
Plaster (2)(3)(4)(10)	✓
Plasterboard (2)(3)(4)	✓
Tile Backer/Fibre Cement Boards (2)(3)(4) (6)	✓
Timber Floors (2)(7)	✓
Overlaid Timber Floors – 15mm min. (4)(6)(9)	✓
Anhydrite/Calcium Sulfate Screeds (5)(8)	✓

#### COVERAGE

Usage (primer)	Typical Coverage ^	5 litre Bottle
Undiluted	12m <sup>2</sup> /litre	60m <sup>2</sup>
Diluted 1:2 with water	36m <sup>2</sup> /litre	180m <sup>2</sup>
Diluted 1:4 with water	40m <sup>2</sup> /litre	300m <sup>2</sup>

^ May vary dependent on the porosity of surface, and on application.

Usage (bonding & admixture)	Typical Coverage	5 litre Bottle
Plastering (12mm thick):	5m <sup>2</sup> /litre	25m <sup>2</sup>
Rendering (12mm thick):	1.5m <sup>2</sup> /litre*	7.5m <sup>2</sup> *
Screeding (50mm thick):	0.25m <sup>2</sup> /litre*	1.25m <sup>2</sup> *

\* @ 10 litres per 50kg OPC or BAL QUICKST CEMENT

Usage (slurry coat)	Typical Coverage	5 litre Bottle
Portland cement or BAL QUICKSET CEMENT (1mm thick):	3m <sup>2</sup> /litre	15m <sup>2</sup>

- (1) Tiles must be grouted using BAL EASYPOXY AG.  
 (2) Primer – Dilute 1 part BAL BOND SBR to 2 parts water by volume  
 (3) Primer – Dilute 1 part BAL BOND SBR to 4 parts water by volume  
 (4) In wet conditions tank out with BAL WATERPROOFING KIT FOR SHOWERS, BAL TANK-IT or BAL WATERPROOF PLUS.  
 (5) Prime with BAL BOND SBR, first coat 1:4 with water, second coat diluted 1:2 with water 90° to the first.  
 (6) Check suitability for the intended purpose with the manufacturer.  
 (7) When used with BAL RAPID-MAT.  
 (8) May be used in conjunction with BAL RAPID-MAT.  
 (9) Seal back face and edges with undiluted BAL BOND SBR.  
 (10) Used as an admixture and slurry coat to obtain optimum benefits.

Not recommended for use on paint, metal or existing glazed tiles.

#### Note:

- (a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4  
 (b) Do not fill pool for at least 3 weeks after completion of grouting – BS 5385:Part 4

## **SURFACE PREPARATION**

### **Primer/Sealer**

BAL BOND SBR can be used on the following areas as a primer or sealer before tiling:

- **Plaster**

Dilute 1 part BAL BOND SBR with:

For ready mixed dispersions, 4 parts clean cold water.

For cement based powders, 2 parts clean cold water.

- **Screeds/renderers**

Dilute 1 part BAL BOND SBR with 4 parts clean cold water.

- **Vinyl**

Brush BAL BOND SBR undiluted over whole of surface to be tiled.

- **Timber surfaces**

Seal timber surface on the underside and edges only with undiluted BAL BOND SBR.

### **Admixtures**

BAL BOND SBR can be used as on the following areas:

- **Bricklaying/pointing**

Add 10-15litres BAL BOND SBR to 50kg cement.

- **Plastering**

For slurry coat, dilute 1 part BAL BOND SBR to 4 parts water and mix with 9 parts plaster.

For integral part of plaster mix. Mix 2-4 litres BAL BOND SBR to 50kg plaster.

Dampen surface before application and apply plaster before slurry dries.

- **Rendering/screeding/patching/repairing**

For Slurry coat, add 1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean water to achieve desired consistency.

Dampen surface before application and apply render/screed before slurry dries.

For integral part of mortar (recommended for best results), mix 5-10 litres BAL BOND SBR with 50kg cement. In areas of high hydrostatic pressure, contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

NOTE: On vertical surface and soffits, coatings exceeding 6mm may be difficult to apply because mortars with BAL BOND SBR are more likely to slump than conventional mortars.

## **MIXING**

1. Shake container well before use.

2. Can be used undiluted/dilute 1:2 or 1:4 by volume of BAL BOND SBR and clean water and thoroughly mix.

## **APPLICATION/USAGE**

### **Usage procedure**

IMPORTANT NOTE: Do NOT use in temperatures below 5°C.

1. Ensure surfaces are free from dirt, grease and other loose materials. Brush down highly polished surfaces with a stiff bristle brush before priming.

2. Apply 2 coats of BAL BOND SBR using a clean brush from a container, diluted or undiluted as appropriate (See USAGE above). Allow to dry between coats.

NOTE: If using on floor, do NOT allow to form puddles.

3. Ensure even coverage.

4. Allow to dry thoroughly for 15-30 minutes before applying adhesive.

5. Clean product from tools using clean water.

**HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

**TECHNICAL ADVISORY SERVICE**

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**SHELF LIFE**

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**QUALITY AND ENVIRONMENTAL STANDARDS**

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This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

**CONDITIONS OF SALE**

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# easypoxy ag

## Epoxy Adhesive and Grout for Walls & Floors

### DESCRIPTION

High strength epoxy adhesive and grout suitable for fixing and grouting wall and floor tiles for applications in which cement based adhesives and grouts do not have sufficient chemical resistance or where increased adhesion strengths are required.

#### Use as an adhesive for

Fixing WALL and FLOOR tiles where high levels of adhesive and/or chemical resistance are required.

BAL Easypoxy AG is classified by EN 12004 as a R2 Improved Reaction Resin Adhesive

Most types of tiles including:

- Ceramic
- Porcelain and fully vitrified tiles
- Mosaics and glass
- Slate including some microthin slate sheets (contact BAL TECHNICAL ADVISORY SERVICE)

#### INTERNAL and EXTERNAL walls and floors

DRY and WET environments.

Recommended for:

- Food preparation areas
- Domestic kitchens and worktops
- Bathrooms and showers
- Hospitals and industrial/chemical plants
- Swimming pools
- Dairies

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Worktops	✓	Showers	✓
Swimming Pools (1)	✓	Heated Screeds	✓
Hydrotherapy Pools (1)	✓	Limited Movement / Vibration	✓
Hygienic / Sterile Areas	✓	Chemical Resistance	✓
Showers Including	✓		
Power Showers (2)			

(1) Do not fill pool for at least 3 weeks following completion of grouting – in accordance with BS 5285 Part 4:2015. Clause 7.3.2.10

(2) Do not use shower for at least 2 weeks after completion of grouting – in accordance with BS 5385 Part 4: 2015, clauses 7.2.1

#### Use as an grout for

Grouting WALL and FLOOR tiles in environments where chemically resistant joints are required or where a hygienic, **durable, abrasion-resistant, waterproof finish** is required.

Whilst BAL Easypoxy AG is not recommended for direct food contact, its use is recommended for food preparation areas where a hygienic, easily cleaned surface is required.

BAL Easypoxy AG is classified by EN 13888 as a RG Reaction Resin grout.

Most type of tiles including:

- Ceramic
- Porcelain and fully vitrified tiles
- Mosaics
- Slate

#### Recommended for:

- Commercial food preparation areas
- Domestic kitchens and worktops
- Breweries, Abattoirs, Dairies
- Swimming and hydro-therapy pools
- Sport centres
- Bathroom, domestic and commercial showers including power showers
- Hospitals and Industrial/chemical plants

NOTE: For further information, contact the BAL TECHNICAL ADVISORY SERVICE.

#### Restrictions: NOT suitable for

Metal decor/lustre etc.

#### PRODUCT INFORMATION

**Composition:** Epoxide resin-based powder and liquid.

**Colours:** White/Grey/Black

**Type/Classification:** Exceeds BS EN 12004 **R2** (as an adhesive. Exceeds BS EN 13888 **RG** (as a grout)

**Pack sizes:** 4kg

**Key features:** Chemical-resistant. Ease of decontamination. Waterproof. Durable and abrasion-resistant.

**Cures in:** 12 hours.

**Joint widths:** 2-12mm

## MIX/USAGE DATA

Pot Life	Cure Time	Specific Gravity
45 minutes	12 hours	1.8

## APPLICATION AREAS

Bakeries/Breweries	✓
Cafes/Pubs/Restaurants	✓
Chemical Plants	✓
Changing Rooms (Spas, Jacuzzis)	✓
Dairies/Food/Drink Processing Plants	✓
Kitchens Commercial/Domestic	✓
Hospitals/Medical/Dental/Veterinary Surgeries	✓
Abattoirs	✓
Industrial Plant Rooms	✓
Shopping Malls/Supermarkets	✓
Sports/Leisure Centre	✓

## COVERAGE as grout

Tile Size	Joint Width	Typical Coverage for 1 kg pack
150x150x5mm	2mm	5m <sup>2</sup> per kg
300x300x9mm	3mm	3.7m <sup>2</sup> per kg

Depending on tiles and working method, an additional 0.1 to 0.2kg/m<sup>2</sup> of material may be required.

## COVERAGE as adhesive

**Typical coverage is 1.6-1.7 kg of adhesive per mm thickness.**

^ May vary dependent on nature and flatness of surface, and on trowel used.

## TEMPERATURE RESISTANCE\*\*

-20°C to 60°C prolonged  
Up to 100°C intermittent

\*\* Cured adhesive and grout.

## SURFACE PREPARATION

### General as an adhesive

Before fixing wall and floor tiles, ensure that:

Surfaces to be tiled are flat, clean, dry, sound and free from contamination and all barriers to adhesion. Profiled tiles and porous tiles may result in traces of adhesive on the tile surface – if in doubt conduct a trial evaluation before proceeding.

**IMPORTANT NOTE:** Ensure adequate ventilation – and do NOT use in temperatures below 10°C, above 30°C or in damp conditions.

*If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.*

*If grouting adjacent to food preparation areas, ensure physical segregation of work area before fixing or grouting.*

If fixing onto plaster/plasterboard, check that tile weight (INCLUDING adhesive) will NOT exceed 20kg/m<sup>2</sup> (plaster) or 32kg/m<sup>2</sup> (plasterboard). Note that battens will be required if fixing tiles to walls.

### MIXING

Thoroughly mix the Hardener (small container) into the Resin until a uniform mortar is produced. The use of a propeller type stirrer in a slow speed drill is advantageous.

Mix slowly and thoroughly to a uniform colour. Avoid entraining air by mixing at too high speed or by over-mixing. Note: Back-mix resin and hardener pots to ensure that no un-reacted resin and hardener remains before disposing, after curing, as non-hazardous waste.

Mixed epoxy adhesive or grout working time/Pot life at 20°C: approx. 45 minutes. This is reduced at higher temperatures and extended at lower temperatures. At high temperatures it is recommended that the mortar is spread out immediately after mixing as self-heating in the container will reduce the working time/pot life.

### APPLICATION

#### Adhesive procedure

Depending on substrate and tile type. Apply using an appropriate wall or floor tiling trowel.

1. Apply adhesive to a suitably prepared wall or floor surface and comb out with a notched trowel to give a ribbed adhesive bed.
2. Press tile firmly into the ribs of the adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact. For floor applications, solid bed fixing should be achieved, ensuring that any voids beneath the tiles are eliminated. The minimum bed depth for floors is 3mm.
3. Fix tiles before adhesive forms skin, typically 10 minutes at 20°C (this is reduced at higher temperature and extended at lower temperatures). At high temperatures it is recommended that the mortar is spread out immediately after mixing as self-heating in the container will reduce the working time. If adhesive is no longer wet, remove adhesive and apply fresh layer.
4. Remove any excess adhesive residue from tile surface as work proceeds.
5. Occasionally lift a tile to check adhesive contact area.
6. For certain tile types in wall application a batten may be required.
7. Suitable for grouting after 12 hours at 20°C.

## APPLICATION

### Grouting procedure

Before grouting wall and floor tiles, ensure that:

Surface and joints is clean, dry and free from contamination or loose debris.

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER – and repeat trial.
  2. For glass, some natural stone, profile trims, absorbent textured or soft ceramic tiles which may be vulnerable to surface scratching, test in a small inconspicuous area to ensure compatibility, or consult the tile manufacturer/ distributor for further advice. See also BS 5385: Part 1 for further information.
  3. Work in small areas using a Hard Rubber/ Grout Float. Completely fill tile joints with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
  4. Clean off within the working time. Using a BAL EMULSIFYING PAD (WHITE) or fine Scotchbrite pad with a little water (clean cold water) and applying gentle pressure, working in circular movement to emulsify the residues on the face and provide uniform grout joints.
  5. Using a clean sponge, remove emulsified epoxy/water residue, cleaning diagonally to grout lines
  6. Clean any remaining light haze from the surface next day, using a BAL EMULSIFYING PAD (WHITE) or Scotchbrite pad.
- NOTE: Do not allow any surplus grout or haze to remain on the surface for more than 24 hours.
- NOTE: If completing a shower, do NOT use for at least 2 weeks (as required by BS 5385 Part 4) .
- Protection (food preparation/ storage areas): Tiles/mosaics to be kept dry and not brought into service until the epoxy grout has cured and hardened. Not recommended for grouting tiles with soft-glazed wall tiles or tiles with metal décor or lustre.
- NOTE: As for all epoxy grouts, BAL EASYPOXY AG may yellow on exposure to sunlight or UV light or strong heat. Where strong exposure is anticipated, consider the use of BAL EASYPOXY AG GREY or BLACK.
- Spillages of e.g. coffee and fruit juices may stain the surface of the grout if not cleaned immediately.

NOTE: Chemical resistance is achieved approximately 7 days after application at 20°C.

Resistant to:

Ammonia  
Saturated calcium hydroxide  
5% chromic acid  
Fixing solution (photographic)  
Ethylene glycol  
Brackish water  
Glycerine  
Household detergent  
Diesel  
Saturated caustic soda  
Petrol  
Sea water  
50% methyl alcohol  
10% lactic acid  
Saturated sodium hydroxide  
Vegetable fats  
50% phosphoric acid  
10% nitric acid  
36% hydrochloric acid  
80% sulphuric acid  
Brine  
Animal fats  
10% hydrogen peroxide  
Saturated tartaric acid  
Saturated citric acid  
Treacle

Splash contact only

>5% acetic acid  
Chloroform  
>20% lactic acid  
>40% nitric acid



## **PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **POWERSPEC**

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

Visit [www.powerspeconline.com](http://www.powerspeconline.com)

## **SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

## **QUALITY AND ENVIRONMENTAL STANDARDS**

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

## **25 YEAR GUARANTEE**

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

## **CONDITIONS OF SALE**

Sold subject to the Company's Conditions of Sale. *Available on request.*

*For sales and technical queries, contact:*

### **BUILDING ADHESIVES LTD**

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd



# green star

## Tile adhesive for walls

### DESCRIPTION

Non-slip ready-mixed tile adhesive for walls.

### Use for

- Fixing ceramics (up to 300x300mm), mosaics and some natural stone in dry or wet interior environments.
- For domestic areas including showers/kitchens/bathrooms.

### Restrictions: NOT suitable for

- Exterior use or total immersion areas (e.g. swimming pools).
- Commercial areas including showers and power showers.
- Non-porous tiles.
- Bedding depths exceeding 3mm.

### PRODUCT INFORMATION

**Composition:** Acrylic based organic dispersion

**Colour:** White

**Type/Classification:** Exceeds BS EN 12004 D1TE – Dispersion (ready-to-use), Normal Characteristics, Reduced Slip, Extended Open-Time

**Pack size:** 15kg

### Key features:

- Ready-to-use
- Extended open time (30 mins)
- Easy to apply
- Excellent non-slip (no battens required)

**Grout after:** 24 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✗
Interior	✓	Exterior	✗
Dry	✓	Wet	✓
		(1)(3)(6)	
Domestic	✓	Worktops	✓
Showers		(1)	
(a)(1)(3)(6)			
Communal Wet and Dry Areas	✗		

### BACKGROUNDS / BASES

Rendering	✓
Clay Brick / Medium Density Concrete (2)	✓
Sheets & Boards (3) (4)	✓
Tile Backer Boards (5)(6)	✓
Plasterboard (3)	✓
Plaster (3)	✓
Glazed Tile & Brick (6)	✓
Painted Surface (6)	✓

### USAGE: Bed Thickness / Time

Bed Thickness ^	Open Time*	Setting Time*
3mm max	>30 mins	24 hours at 20°C

\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Area	Trowel	Coverage ^
Dry Wall	Round Notched	0.4m <sup>2</sup> /kg
Wet Wall	Thin Bed Solid Bed	0.33m <sup>2</sup> /kg

^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*

-30°C to 100°C

\*\* Cured adhesive.

(1) Tiles must be grouted using BAL EASYPOXY AG.

(2) Provided the surface is sufficiently flat.

(3) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(4) Seal back face and edges with undiluted BAL BOND SBR.

(5) Check suitability for the intended purpose with the manufacturer.

(6) Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Note:

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### *Surface regularity:*

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. It is important the surface is to SR1 (+ or – 3mm or less over a 2 meter straight edge).

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

*In domestic shower areas:* waterproof background with BAL TANK IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM. NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting with BAL EASYPOXY AG.

### SUITABLE SURFACES include:

#### **Clay Brickwork/dense concrete/blockwork walling**

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1).

NOTE: Direct fixing of tiles to lightweight blockwork is NOT recommended.

#### **Cement:sand renders**

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete block walls/clay brickwork: 6 weeks
- Cement:sand rendering: 2 weeks

#### **BAL QUICKSET CEMENT: rendering**

- Rendering (bonded): 4 hours\*\*

#### **BAL BOND SBR SLURRY**

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency**

**BAL QUICKSET RENDER: 2 hours**

#### **Existing glazed ceramic tiles/glazed bricks**

Ensure existing tiles/bricks are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### **Fibre reinforced cement boards and lightweight tile backer boards**

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Do NOT seal or prime surfaces to be tiled.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### **Plywood (walls) (internal dry areas only)**

Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup> ; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry.

Do NOT prime surfaces to be tiled.

### **Plaster (finish coat only)**

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (diluted 1:1 by volume with clean water) or
- BAL BOND SBR (diluted 1:4 by volume with clean water)

Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

NOTE: When priming, drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### **Plasterboard (If required)**

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Typical weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### **Painted surfaces**

Remove all loose and flaking paint.

Check by applying a suitable self-adhesive tape to clean dry paint surfaces. Tear off tape after 10 mins. If paint is removed with the tape, the paint is unsound.

Remove unsound paint mechanically. Do NOT use paint strippers.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions. If fixing larger format tiles (advised up to max. 300x300mm or fixing onto a non-porous background (e.g. tiles), drying times will be extended.

For larger size tiles contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
Mosaics (up to 100x100mm tiles)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. *If fixing large (300x300mm maximum)/heavily-patterned tiles, apply additional adhesive to tile reverse (DO NOT apply over 3mm maximum).*

2. For *mosaics*: using a rubber tile float, press mosaics into adhesive and beat into required position, ensure joints between sheets match joints between mosaic tesserae (i.e. staggered).

For tiles: press tile firmly into the ribs of adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 30 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer).

4. Occasionally lift a mosaic/tile to check adhesive contact are 50% coverage for dry areas; min. 100% coverage for wet areas (i.e. When solid-bed fixing, leave no voids behind tiles).

5. Leave adequate joints between individual tiles unless self-spacing tiles used.

6. Install movement joints to BS 5385, Parts 1-5.

7. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Waiting minimum 24 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.

NOTE: If tiling on an impervious background (e.g. existing tiles or primed areas) and/or fixing larger format tiles (up to 300x300mm) or porcelain tiles (up to 150x150mm), delay grouting for min. 3 days, to allow for extended setting time.

2. Fill movement joint and seal around bath/shower trays with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. However, do NOT use on sensitive surface that could react to acetic acids released during cure.

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

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### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. Available on request.

For sales and technical queries, contact:

### BUILDING ADHESIVES LTD

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# bal grout

## Tile Grout for joints up to 3mm

### DESCRIPTION

Water/frost-resistant cementitious tile grout for walls.

#### Use for

- Grouting ceramics and mosaics in dry or wet interior and exterior environments.
- For joint widths: up to **3mm**
- Recommended for swimming pools.
- Further applications are possible by adding BAL ADMIX GT1 to provide flexibility, increased adhesion and high bond strength. Ratios:
  - For plywood walls BAL ADMIX GT1 (diluted 1:1 with water)
  - For porcelain tiles BAL ADMIX GT1 (diluted 1:2 with water)

#### Restrictions: NOT suitable for

- Power showers, food preparation/storage areas, and areas requiring waterproof grouting.

NOTE: Use a BAL Epoxy grout in these cases.

#### PRODUCT INFORMATION

**Composition:** Cement-based polymer-modified powder.

**Colours:** White, Ivory, Grey

**Type/Classification:** Exceeds BS EN 13888 **CG1**

**Pack sizes:** 20kg, 10kg, 3.5kg and 1.5kg

**Key features:** Water/frost-resistant.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Showers (1) (2)	✓
Swimming Pools (3) (4)	✓		
Movement/Vibration (4)	✓		
Heavily Trafficked Floors	✓		

(1) Use a BAL epoxy grout for power shower with body jets. Do not use shower for at least 2 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.

(2) Not recommended for use in power showers.

(3) Do not fill pool for at least 3 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.

(4) When used in conjunction with BAL ADMIX GT1.

Mix/Usage Data			
Powder:Water Ratio (by weight)	Pot Life at 20°C	Cure Time at 20°C*	Specific Gravity
3:1	60 mins	24 hours	1.33g/cm <sup>3</sup>

\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

Usage: Tools/Coverage		
Tile Size	Joint Width	Typical Coverage <sup>^</sup>
150x150x6mm	2mm	4.8m <sup>2</sup> /kg
200x200x6mm	2mm	6.4m <sup>2</sup> /kg

<sup>^</sup> May vary dependent on nature and flatness of surface, and on trowel used.

Temperature Resistance
-30°C to 150°C

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging.
2. Open joints are protected from contamination – and are clean, dry and free from loose debris.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

*If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.*

*If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.*

*If grouting shower installations, BAL GROUT is water-resistant but NOT impervious to water and is not a substitute for tanking systems.*

*Recommendations (showers):*

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a water-resistant adhesive (e.g. BAL WHITE STAR or BAL SINGLE PART FLEXIBLE adhesive).

### MIXING

1. Slowly add 3 parts powder to 1 part clean cold water by weight (e.g. 1kg powder with 0.3 litres water). Mix until smooth paste formed.

*NOTE: If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

2. Wait 2-3 minutes, then briefly mix again. Avoid entraining air by mixing at too high speed or by over-mixing.

Mixed grout working time at 20°C: approx. 60 minutes.

**NOTE:**

Do NOT add more water to mixed grout as this would reduce final strength.

Working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER – and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joints with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15 minutes for grout to dry before cleaning tile surface.
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth OR give surface final wash with dampened sponge and clean cold water.

**NOTE:** For maximum speed/ease, use a BAL Wash Boy.

6. Wait minimum 24 hours before subjecting tiles to normal service conditions.

**NOTE:**

*If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL Technical Advisory Service for further advice).*

*If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4:2009, clause 7.2.1).*

### CLEANING

Always use cleaning products suited to tile type. For best long-term antibacterial protection, regular cleaning with BAL MICROSHIELD TILE CLEANER is strongly recommended.

## **HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

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## **25 YEAR GUARANTEE**

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

*Contact BAL Marketing Department for full details.*

## **CONDITIONS OF SALE**

Sold subject to the Company's Conditions of Sale.  
*Available on request.*

*For sales and technical queries, contact:*

### **BUILDING ADHESIVES LTD**

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Fax: +353 (0) 1 880 9211

NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.



# microflex

## Antimicrobial wall tile grout for joints up to 5mm

### DESCRIPTION

Highly flexible, water/frost-resistant cementitious tile grout with built-in Microban® antimicrobial protection for walls.

### Use for

- Grouting porcelain, glazed and fully vitrified, glass and ceramic mosaics, marble and natural stone in dry and wet interior and exterior environments.
- Can also be used on some floors depending on tile type, area and traffic. Please contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.
- For Joint widths: up to **5mm**
- Recommended for swimming pools and power showers

### Restrictions: NOT suitable for

- \*Food preparation/\*storage areas,\* Spas,\* Jacuzzis,  
\*Chemical Plants, Power Showers with body jets and areas requiring \*waterproof grouting.

\*Further applications by using a BAL Epoxy Grout.

### PRODUCT INFORMATION

**Composition:** Highly polymer-modified cement-based powder with built-in Microban®.

**Colours:** White, Ivory and Ebony.

**Type/Classification:** Exceeds BS EN 13888 **CG2WA** – Cementitious Grout with Improved / Additional Characteristics, Reduced Water Absorption and High Abrasion Resistance.

**Pack sizes:** 10kg and 3.5kg

### Key Features:

- Built-in Microban® antimicrobial protection
- Water/frost-resistant
- Highly polymer- modified for increased flexibility and high bond strength
- Set in:** 24 hours (at 20°C)

Microban® antimicrobial protection: inhibit growth of bacteria (e.g. Listeria, Salmonella, E-Coli) and black mould. Provides added hygiene protection for bathrooms, showers and food consumption areas.

Active biocide used to treat the article:

p-[(diiodomethyl)sulphonyl]toluene.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor (3)	✓
Interior	✓	Exterior	✓
Dry	✓	Wet (4)	✓
Worktops (1)	✗	Showers (a)(1)(4)	✓
Swimming Pools (b)(2)	✓	Limited Movement / Vibration	✓

### APPLICATION AREAS

Leisure Centres	✓
Bathrooms	✓
Changing Rooms	✓
Restaurants/Food Consumption Areas	✓
Domestic Kitchens	✓
Shopping Malls	✓

### MIX/USAGE DATA

Powder:Water Ratio	Pot Life at 20°C	Cure Time at 20°C *	Specific Gravity
4:1	60 mins	24 hours	1.33/cm <sup>3</sup>

\*\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Tile Size	Joint Width	Coverage ^^
200x100x6mm	3mm	2.65m <sup>2</sup> /kg
400x300x8mm	3mm	4.97m <sup>2</sup> /kg
600x200x8mm	2mm	6.49m <sup>2</sup> /kg
900x600x10mm	2mm	12.37m <sup>2</sup> /kg

^^Coverage may vary dependent on mixed grout and application.

### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C

\*\*\* Cured grout.

(1) Tiles must be grouted using BAL EASYPOXY AG for Food preparation

/storage areas power showers with body jets/Spas/Jacuzzis/Chemical Plants.

(2) Tiles must be grouted using BAL EASYPOXY AG for wave pools.

(3) Used on some floors depending on tile type and traffic, contact BAL TECHNICAL SERVICES.

(4) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

(b) Do not fill pool for at least 3 weeks after completion of grouting

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging or BAL TECHNICAL DATA SHEET.
2. Open joints clear from excess adhesive and are protected from contamination – and are clean, dry and free from loose debris.
3. Be consistent with the amount of clean cold water used with the cement based grout from mix to mix when grout larger areas.
4. Lighting conditions during the installation of tile fixing and grouting should not be 'Appreciably different' from the final (Permanent) lighting. Where possible, check the grout colour with the final lighting conditions.
5. Check colour consistency when using the same grout when applied between different tile types i.e. porous bodied or porous stone tiles vs. porcelain or denser stone.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.

If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.

If grouting shower installation, BAL MICROFLEX is water-resistant but NOT impervious to water and not a substitute for waterproof systems.

### Recommendations:

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a solid bed with a water-resistant adhesive (e.g. BAL WHITE STAR PLUS, BAL GRIP PLUS, BAL MAX FLEX FIBRE or BAL SINGLE PART FLEXIBLE).

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Slowly add approximately 4 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed grout to stand for 2-3 minutes before re-mixing for 30 seconds. Avoid entraining air by mixing at too high speed or by over

Product Size	Usage	Approx., clean cold water required per size
3.5kg	Wall areas	0.875 litres
10kg	Wall areas	2.5 litres

**NOTE:** If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 60 minutes.

**NOTE:**

Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperature=longer.

Do NOT add more water to mixed grout as this would reduce final strength.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER- and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joint with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15minutes for grout to dry (at 20°C) or when the surface of the grout is dry enough to the touch (NOT fully set/Cured).
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water. **NOTE:** Do NOT allow water to entre un-grouted joints.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth. **NOTE:** For maximum speed/easy, use a BAL WASH BOY.
6. Clean any remaining light haze from the surface next day, using water and a BAL EMULSIFYING PAD and gripper.
7. Wait minimum 24 hours before subjecting tiles to normal service conditions.

### NOTE:

If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further advice).

If completing a shower, do NOT use shower for at least 2 weeks.

### CLEANING

Always use cleaning products suited to tile type. For best long-term antimicrobial protection, regular cleaning with BAL MICROSHIELD TILE CLEANER (with Microban® antimicrobial protection) is recommended.

**HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

**TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

**POWERSPEC**

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**SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

**QUALITY AND ENVIRONMENTAL STANDARDS**

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**25 YEAR GUARANTEE**

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This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

**CONDITIONS OF SALE**

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*For sales and technical queries, contact:*

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# micromax2

## Antimicrobial wall & floor tile grout for joints 1mm to 20mm

### DESCRIPTION

Rapid-setting, highly flexible, water/frost-resistant cementitious tile grout with built-in Microban® antimicrobial protection for walls and floors.

#### Use for

- Grouting porcelain, glazed and fully vitrified, glass and ceramic mosaics, marble and natural stone in dry and wet interior and exterior environments.
- For Joint widths: **1mm to 20mm**
- Recommended for power showers, wet rooms, heated floors and timber floors.

#### Restrictions: NOT suitable for

- Swimming pools.
- \*Food preparation/\*storage areas,\* Spas,\* Jacuzzis, \*Chemical Plants, Power Showers with body jets and areas requiring \*waterproof grouting.

\*Further applications by using a BAL Epoxy Grout.

- Can be used on single layer timber floors by adding 2 parts water to 1 part BAL ADMIX GT1 by volume. For overlaid timber floors, i.e. minimum 15mm thick plywood or minimum 10mm thick tile backing boards the addition of BAL ADMIX GT1 is not required.
- When grouting soft glazed wall tiles or tiles with a metal décor or lustre, care should be taken to ensure they are not damaged/ scratched. If there is any doubt, a test area should be grouted first in an inconspicuous area.

### PRODUCT INFORMATION

**Composition:** Rapid-setting highly polymer-modified cement-based powder with built-in Microban®.

**Colours:** White, Manilla, Gunmetal, Pebble, Jasmine, Ebony, Smoke, Chocolate, Cocoa, Anthracite and Snow.

*Additional 'Inspiration' collections available at Topps Tiles only, including: Ash, Lime, Cement, Pecan, Cedar, Coffee, Antique White, Praline, Jade, Sky and Blush.*

For large projects, bespoke colours are available upon request.

**Type/Classification:** Exceeds BS EN 13888 **CG2WA** – Cementitious Grout with Improved / Additional Characteristics, Reduced Water Absorption and High Abrasion Resistance.

**Pack sizes:** 2.5kg, 5kg, 10kg (Note: certain sizes may not be available for all colours)

#### Key Features:

- Sets in 2-3 hours: enables faster completion
- Efflorescence-free formulation: minimises risk of patchy discolouration. Water/frost-resistant. Built-in admixture for increased flexibility and enhanced durability. Ensures clean, even finish for grout joints.
- Set in:** 2-3 hours (at 20°C)

Microban® antimicrobial protection: inhibit growth of bacteria (e.g. Listeria, Salmonella, E-Coli) and black mould. Provides added hygiene protection for bathrooms, showers and food consumption areas. Active biocide used to treat the article: 2-Octyl-2H-isothiazol-3-one.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet (3)	✓
Worktops (1)	✗	Showers (a)(1)(3)	✓
Swimming Pools	✗	Limited Movement / Vibration	✓

### APPLICATION AREAS

Leisure Centres	✓
Bathrooms	✓
Changing Rooms	✓
Restaurants/Food Consumption Areas	✓
Domestic Kitchens	✓
Shopping Malls	✓

### MIX/USAGE DATA

Powder:Water Ratio	Pot Life at 20°C	Cure Time at 20°C **	Specific Gravity
5:1	>30 mins	2-3 hours	1.45/cm <sup>3</sup>

\*\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

#### COVERAGE

Tile Size	Joint Width	Coverage ^^
200x100x6mm	2mm	3.59m <sup>2</sup> /kg
400x400x8mm	3mm	5.30m <sup>2</sup> /kg
600x600x8mm	1mm	23.59m <sup>2</sup> /kg

^^Coverage may vary dependent on mixed grout and application.

#### TEMPERATURE RESISTANCE\*\*\*

-30°C to 100°C
----------------

\*\*\* Cured grout.

(1) Tiles must be grouted using BAL EASYPOXY AG for Food preparation /storage areas power showers with body jets/Spas/Jacuzzis/Chemical Plants.

(2) Tiles must be grouted using BAL EASYPOXY AG for wave pools.

(3) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging or BAL TECHNICAL DATA SHEET.
2. Open joints clear from excess adhesive and are protected from contamination – and are clean, dry and free from loose debris.
3. Be consistent with the amount of clean cold water used with the cement based grout from mix to mix when grout larger areas.
4. Lighting conditions during the installation of tile fixing and grouting should not be 'Appreciably different' from the final (Permanent) lighting. Where possible, check the grout colour with the final lighting conditions.
5. Check colour consistency when using the same grout when applied between different tile types i.e. porous bodied or porous stone tiles vs. porcelain or denser stone.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.

If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.

If grouting shower installation, BAL MICROMAX2 is water-resistant but NOT impervious to water and not a substitute for waterproof systems.

### Recommendations:

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a solid bed with a water-resistant adhesive (e.g. BAL WHITE STAR PLUS, BAL GRIP PLUS, BAL MAX FLEX FIBRE or BAL SINGLE PART FLEXIBLE).

### MIXING

Use a BAL MIXING BUCKET or other suitable bucket.

1. Slowly add approximately 5 parts powder to 1 part clean cold water by weight. (see table below)
2. Mix until lump-free mortar achieved.
3. Allow mixed grout to stand for 2-3 minutes before re-mixing for 30 seconds. Avoid entraining air by mixing at too high speed or by over

Product Size	Usage	Approx., clean cold water required per size
2.5kg	Wall and floor areas	0.475 litres
5kg	Wall and floor areas	0.950 litres
10kg	Wall and floor areas	1.9 litres

**NOTE:** If using electric drill mixer, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 30 minutes.

**NOTE:**

Pot life/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperature=longer.

Do NOT add more water to mixed grout as this would reduce final strength.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER- and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joint with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15minutes for grout to dry (at 20°C) or when the surface of the grout is dry enough to the touch (NOT fully set/Cured).
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water. **NOTE:** Do NOT allow water to entre un-grouted joints.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth. **NOTE:** For maximum speed/easy, use a BAL WASH BOY.
6. Clean any remaining light haze from the surface next day, using water and a BAL EMULSIFYING PAD and gripper.
7. Wait minimum 3 hours before subjecting tiles to normal service conditions.

If completing a shower, do NOT use shower for at least 2 weeks.

## CLEANING

Always use cleaning products suited to tile type. For best long-term antimicrobial protection, regular cleaning with BAL MICROSILD TILE CLEANER (with Microban® antimicrobial protection) is recommended.

## **HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **POWERSPEC**

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Visit [www.powerspeconline.com](http://www.powerspeconline.com)

## **SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

## **QUALITY AND ENVIRONMENTAL STANDARDS**

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

## **25 YEAR GUARANTEE**

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*Contact BAL Marketing Department for full details.*

## **CONDITIONS OF SALE**

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# prime APD

## Acrylic Primer for Walls and Floors

### DESCRIPTION

Rapid-drying acrylic primer for tiling substrates.

#### Use for

- Preparing wall and floor backgrounds prior to fixing of ceramics, mosaics and natural stone tiles in dry or wet interior and exterior environments.
- May also be used with BAL ACRYBASE, BAL MULTIBASE, BAL ULTRABASE Levelling Compounds and with BAL WP1/Waterproofing Kit for Showers
- Use undiluted on
  - Plaster walls and plasterboard (when using a BAL cementitious adhesive)
  - Tongued and grooved floorboards
  - Anhydrite screed floors
- Use diluted 1:1 with clean water on:
  - Plaster walls (when using a BAL ready-mixed adhesive), only if dusty or porous
  - Cement floors

#### PRODUCT INFORMATION

**Composition:** Modified acrylic polymer dispersion.

**Pack size:** 2.5 litre

**Key features:** Stabilises dusty surfaces. Reduces porosity of backgrounds.

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Worktops	✓	Interior	✓
Exterior	✓	Dry	✓
Wet	✓		
Showers (1)			✓
Heated Screeds			✓
Limited Movement/Vibration			✓

- (1) Do not use showers for at least 2 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.  
 (2) Tiles must be grouted with a BAL Epoxy grout e.g. BAL-EASYPOXY.  
 (3) Direct fixing in dry conditions only.  
 (4) In wet conditions tank out with the BAL-WP1 TANKING SYSTEM.  
 (5) Use undiluted.

#### BACKGROUNDS/BASES

Brick/Concrete	✓
Rendering	✓
Lightweight Blockwork (3)	✓
Plaster (4)	✓
Plasterboard	✓
Tile Backer Boards	✓
Floorboards (4)	✓
Anhydrite Screed (4) (5)	✓
Cement:Sand Screed	✓
Plywood Overlay (Floors) (4)	✓
Vinyl Tiles	✓

Usage: Coverage	
	Typical coverage <sup>^</sup> :
Undiluted	5 – 10m <sup>2</sup> /litre
Diluted 1:1 with water	10 – 20m <sup>2</sup> /litre

<sup>^</sup> Depends on porosity of substrate.

## APPLICATION/USAGE

### Usage procedure

IMPORTANT NOTE: Do NOT use in temperatures below 5°C.

1. Shake container well before use.
2. Ensure surfaces are free from dirt, grease and other loose materials. Brush down highly polished surfaces with a stiff bristled brush before priming.
3. Apply 2 coats of BAL PRIME APD using a clean brush from a container, diluted or undiluted as appropriate (see USAGE above). Allow to dry between coats.

NOTE: If using on floor, do NOT allow primer to form puddles.

4. Ensure even coverage.
5. Allow to dry thoroughly for 15-30 minutes before applying adhesive.
6. Clean product from tools and hands using clean water.

## HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and direct sunlight. Store between 5°C and 30°C.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

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**Prime APD**



# primer

## Acrylic Primer for Walls and Floors

### DESCRIPTION

Rapid-drying acrylic primer for tiling substrates.

#### Use for

- Preparing wall and floor backgrounds prior to fixing of ceramics, mosaics and natural stone tiles in dry or wet interior and exterior environments.
- May also be used with BAL ACRYBASE, BAL MULTIBASE, BAL ULTRABASE Levelling Compounds and with BAL WP1/Waterproofing Kit for Showers
- Use undiluted on
  - Plaster walls and plasterboard (when using a BAL cementitious adhesive)
  - Tongued and grooved floorboards
  - Anhydrite screed floors
- Use diluted 1:1 with clean water on:
  - Plaster walls (when using a BAL ready-mixed adhesive), only if dusty or porous
  - Cement floors

#### PRODUCT INFORMATION

**Composition:** Modified acrylic polymer dispersion.

**Pack size:** 1 litre

**Key features:** Stabilises dusty surfaces. Reduces porosity of backgrounds.

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Worktops	✓	Interior	✓
Exterior	✓	Dry	✓
Wet	✓		
Showers (1)			✓
Heated Screeds			✓
Limited Movement/Vibration			✓

- (1) Do not use showers for at least 2 weeks after completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.  
 (2) Tiles must be grouted with a BAL Epoxy grout e.g. BAL-EASYPOXY.  
 (3) Direct fixing in dry conditions only.  
 (4) In wet conditions tank out with the BAL-WP1 TANKING SYSTEM.  
 (5) Use undiluted.

#### BACKGROUNDS/BASES

Brick/Concrete	✓
Rendering	✓
Lightweight Blockwork (3)	✓
Plaster (5)	✓
Plasterboard	✓
Tile Backer Boards	✓
Floorboards (4)	✓
Anhydrite Screed (5)	✓
Cement:Sand Screed	✓
Plywood Overlay (Floors) (4)	✓
Vinyl Tiles	✓

Usage: Coverage	
	Typical coverage <sup>^</sup> :
Undiluted	5 – 10m <sup>2</sup> /litre
Diluted 1:1 with water	10 – 20m <sup>2</sup> /litre

<sup>^</sup> Depends on porosity.

## APPLICATION/USAGE

### Usage procedure

IMPORTANT NOTE: Do NOT use in temperatures below 5°C.

1. Shake container well before use.
2. Ensure surfaces are free from dirt, grease and other loose materials. Brush down highly polished surfaces with a stiff bristled brush before priming.
3. Apply 2 coats of BAL PRIMER using a clean brush from a container, diluted or undiluted as appropriate (see USAGE above). Allow to dry between coats.

NOTE: *If using on floor*, do NOT allow primer to form puddles.

4. Ensure even coverage.
5. Allow to dry thoroughly for 15-30 minutes before applying adhesive.
6. Clean product from tools and hands using clean water.

## HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling. Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### SHELF LIFE

12 months under normal dry conditions. Protect from frost and direct sunlight. Store between 5°C and 30°C.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale.  
*Available on request.*

*For sales and technical queries, contact:*

#### BUILDING ADHESIVES LTD

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB, England  
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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

 **Powerspec**  
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**Primer**

# protective sealer

## Temporary protection prior to grouting

### DESCRIPTION

Water-based temporary protection for tiles.

### Use for

- Temporary protective coating of most tile surfaces including ceramics, marble, mosaics, natural stone tiles, terracotta and terrazzo.
- May be used with all BAL grouting products.

### PRODUCT INFORMATION

**Composition:** Water-based polymer emulsion.

**Pack size:** 2.5L and 1L

(1L size exclusively available from Topps Tiles)

#### Key features:

- Protects surface against discolouration when using pigmented grouts. Sealer is removed by washing-off process after grouting.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓

### TILE TYPE

Glazed Ceramic Tiles (2)	✓
Unglazed Ceramic Tiles (2)	✓
Mosaics (2)	✓
Terrazzo (2)	✓
Marble (2)	✓
Polished Porcelain (2)	✓
Natural Stone (1)(2)	✓
Terracotta (1)(2)	✓
Quarry Tiles (2)	✓

(1) Provided the surface is smooth

(2) Care must be taken NOT to get into the joints.

### USAGE: COVERAGE

Product	Size	Ratio	Typical Coverage ^:
BAL PROTECTIVE SEALER	2.5L	Undiluted	25 – 37m <sup>2</sup> (with 2 coat application)
	1L	Undiluted	10 – 15m <sup>2</sup> (with 2 coat application)

^ When used with 2 coat application.

### APPLICATION TEMPERATURE

+5°C to +38°C

## **SURFACE PREPARATION**

### **General**

Ensure tile surfaces are clean, dry, sound and free from contamination.

### **APPLICATION/USAGE**

Do NOT use in temperatures below 5°C or in damp conditions.

### **Usage procedure**

Use undiluted, before grouting begins:

1. Shake container well before use.
2. Apply BAL PROTECTIVE SEALER with clean, colour-fat lint-free cloth.
3. Rub well into the tile surface but avoid application to un-grouted joints.
4. Allow 15 minutes for sealer to dry.
5. Apply a second coat in the same way.
6. Allow to dry for minimum 1 hour (depending on temperature).
7. Apply BAL grout according to instruction on BAL TECHNICAL DATA SHEET.
8. During washing-off process, BAL PROTECTIVE SEALER will be removed. Any residual sealer can be removed with clean water after grouting has set.

## **HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### **TECHNICAL ADVISORY SERVICE**

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### **POWERSPEC**

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Visit [www.powerspeconline.com](http://www.powerspeconline.com)

### **SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

### **QUALITY AND ENVIRONMENTAL STANDARDS**

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### **25 YEAR GUARANTEE**

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This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

*Contact BAL Marketing Department for full details.*

### **CONDITIONS OF SALE**

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd

# quickset cement

## Fast-setting, low shrinkage cement for screeds and renders

### DESCRIPTION

Fast-setting, low shrinkage cement for use in screeds and renders.

#### Use for

Screeding or rendering to prepare wall and floor surfaces prior to installing most tile types.

- Suitable for use in dry and wet installations including swimming pools
- Can be pumped for fast application
- Rapid strength development
- Low shrinkage

#### Restrictions: NOT suitable for

- Wearing surfaces

### PRODUCT INFORMATION

**Composition:** Fast setting specially formulated cement for mixing with sand and water.

**Colour:** Grey

**Type/Classification:** EN 13813:2002 CT-C40-F7

**Pack size:** 20kg

#### Key features:

Water/frost-resistant when set.

Low shrinkage.

Fast-setting: sets in 3 hours.

Screeds can accept foot traffic after 3 hours.

Bonded screeds and renders can be tiled with ceramic tiles after 4 hours.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓
Movement	x	Chemical	x
Vibration		Resistance	

### BACKGROUNDS / BASES

Concrete / Brickwork / Blockwork	✓
Lightweight Concrete Blocks	✓
Concrete Bases	✓

### USAGE: BED THICKNESS / TIME

	Bed Thickness	Pot Life	Setting Time (1)
Screed	50mm	60 mins	3 hours
Render	10mm	60 mins	4 hours

### MIXING GUIDANCE

Product Use	Application Thickness	Mix	Quantity of Cement / m <sup>2</sup>	Coverage (kg cement / m <sup>2</sup> / mm thickness)
Screed	50 mm	1:4 mix with sand	21 kg	0.42
Screed	50 mm	1:5 mix with sand	17.5 kg	0.35
Screed	50 mm	1:7 mix with sand/aggregate	13.5 kg	0.26
Render	10 mm	1:4 mix with sand	3.6 kg	0.36
Slurry Bonding Coat		1 part Quickset/1 part sand/ BAL Bond (diluted 1:1 with water)	Approx. 1.0 kg	Approx. 1.0

- (1) Setting time will be extended in colder temperatures.  
(2) May vary dependent on nature and flatness of surface.  
(3) Recommended application tool: General wood float.

### TEMPERATURE RESISTANCE

-30°C to 100°C

## SURFACE PREPARATION

### General

Provide construction joints in accordance with normal practice. Ensure surfaces are dry, sound, clean and free from grease, dust and any other contamination.

### SUITABLE SURFACES include:

**Concrete, brickwork and blockwork:** Allow to dry for 6 weeks.

**Non porous substrates:** Apply slurry bonding coat (By weight mix 1 part BAL QUICKSET CEMENT with 1 part sand and add BAL BOND SBR diluted 1:1 by volume with water to achieve a creamy consistency). Apply screed/render to wet slurry coat. Contact BAL Technical Advisory Service for further advice.

**Porous substrates:** Always apply slurry bonding coat prior to application of render.

NOTE: For information on anchored mesh reinforcement, contact Technical Advisory Service.

### MIXING

Mix mechanically, using pan, trough or other forced paddle type of mixer. Quantity of water required will depend on grading and moisture content of sand, and mixing method used.

NOTE: **DO NOT** use a free fall drum mixer for this product.

### For screeds :-

Mix	Quickset Cement	Sand / Aggregate	Water
1:4	20 kg	80 kg clean screeding sand to BS8204	Total water content (incl. water contained in sand not to exceed 8.4 litres)
1:5	20 kg	100 kg clean screeding sand	Total water content (incl. water contained in sand not to exceed 10.4 litres)
1:7*	20 kg	120 kg clean screeding sand + 20 kg 6mm aggregate	Total water content (incl. water contained in sand not to exceed 13.6 litres)

\* For 1:7 screed mixes contact BAL Technical Service for further advice

Mix to a semi dry consistency so that, when squeezed in gloved hand, it retains shape/doesn't crumble and no excess water can be squeezed out.

### For renders:-

Use fine aggregate sand to BS EN 13139 O/2 (CP or MP) category 2 fines.

Blend 1 part BAL QUICKSET CEMENT with 4 parts sand by weight.

Mix with cold water. (Depending on moisture content of sand, this 20kg bag, plus 80kg sand, requires approx. 12-16 litres of water). Avoid excess water.

### Rendering

1. Apply slurry bonding coat and apply render onto wet slurry coat.
2. Typical render thickness: 6-12mm. If greater thickness required: Comb or scratch first coat, before it hardens, to provide key for second coat.

NOTE: DO NOT add other cements, lime or additives to the mix.

Use immediately. Pot life at 20°C: approx. 60 minutes.

NOTE: Working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

Discard any unused mix, once it has begun to set.

### APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

**Trowel recommendations;** General wood float.

Provide construction joints in accordance with normal screeding / rendering practice.

### Screed

Use mortar in accordance with recommendations of

– BRE Digest No.104

– BS 8203

– BS 8204-1

1. Spread mortar over an area of floor.
2. Within working life of mortar mix, tamp, compact, level and trowel it off.
3. Treat all day joints, and adjoining bays that have been allowed to stand for more than 60 minutes, with a slurry coat (see bonded screeds) before laying next area.
4. Incorporate bay divisions and construction joints as for normal cement/sand screeds.
5. Protect new screeds from other building operations until suitable floor covering laid.

### Bonded screeds (minimum 20mm to maximum 40mm)

1. Prepare slurry bonding coat: by weight, Mix 1 part BAL QUICKSET CEMENT with 1 part sand and add BAL BOND SBR (diluted 1:1 by volume with water) to achieve a creamy consistency
2. Brush slurry coat onto concrete surface.
3. While this is still wet (within 10 minutes of application), lay screed. Screed design thickness: 40mm.
4. Tiling with ceramic tiles can commence after 4 hours.

### Unbonded screeds (minimum 50mm)

1. Lay a separating layer of building paper or polythene sheeting over floor surface, with 100mm overlap joints.
2. Apply screed direct over separating layer. Minimum screed thickness: 50mm.
3. Tiling with ceramic tiles can commence after 48 hours

### Floating screeds (minimum 65mm for domestic applications, 75mm for commercial applications)

1. Lay screed on compressible layer of thermal or sound insulating material (e.g. polystyrene over concrete base). Minimum screed thickness: 65mm for domestic application.
2. Tiling with ceramic tiles can commence after 48 hours

### Heated screeds (reinforced with mesh)

When a BAL Quickset screed has been laid on a hot water floor system, 6 days should be allowed to elapse before heating up the screed slowly at a maximum rate of 5°C to the maximum operating water temperature of 45°C (i.e. approx. 25 °C screed temperature) or as recommended by the heating manufacturer and maintained at this temperature for 3 days. The maximum floor temperature should then be used and maintained for a further 4 days. In doing so draughts must be avoided. The floor should then be allowed to cool down to room temperature (approx 15°C) before laying floor coverings.

## TILE FIXING

Surfaces to be tiled should have a wood float finish.

### Bonded screeds/renderers:

At 20°C BAL Quickset Cement screeds and rendering will be ready to receive ceramic tiles after 4 hours. Stone products can be fixed after 4 days. Tiles and stone may be laid directly onto the screed or rendering using an appropriate BAL tile adhesive.

### Unbonded screeds

At 20°C unbonded BAL Quickset Cement screeds can receive ceramic tiles after 48 hours.

### Resilient and wood floor finishes

BAL Quickset cement screeds will be ready to receive resilient or wood floor coverings once the screed has dried to less than 2% moisture (carbide method), approx. 4–6 days at 20°C. If a very smooth finish is required a suitable BAL Levelling compound can be used, e.g. BAL Solidbase or BAL Fibrebase

### TECHNICAL DATA

Density fresh mortar	2.1kgs/litre
Working time at 20°C	60 minutes
Setting time at 20°C	3 hours

### Compressive strength (EN13892)

Time	1:4 Ratio	1:5 Ratio
3 hours		7.5 N/mm <sup>2</sup>
8 hours		10.1 N/mm <sup>2</sup>
24 hours		15.5 N/mm <sup>2</sup>
28 days	53.5N/mm <sup>2</sup>	44.6 N/mm <sup>2</sup>

### Flexural strength (EN13892)

Time	1:4 Ratio	1:5 Ratio
3 hours		2.4 N/mm <sup>2</sup>
8 hours		3.3 N/mm <sup>2</sup>
24 hours		4.3 N/mm <sup>2</sup>
28 days	9.7N/mm <sup>2</sup>	9.3 N/mm <sup>2</sup>

### Moisture test (Carbide bomb)

Tested on a 40mm thick 5:1 sand:quickset cement screed (0.52 water/cement ratio) at 23°C/50% RH

- 2% moisture after 4 days
- 1.5% moisture after 6 days

### Soundness (BRE screed test)

BRE screed testing may be carried out 24 hours after installation of BAL Quickset screeds. The depth of an indentation of a correctly mixed and compacted screed should comply with the requirements of the floor finish and category of use. (BS5385 Part 3 2007). e.g.

Category	Acceptance limits after dropping the weight 4 times – max depth of indentation
A	3 mm
B	4 mm
C	5 mm
D	6 mm

	Light Duty (Domestic)	Medium Duty	Heavy Duty
Bonded	C/D	B/C	A
Unbonded	C	B	A
Floating	C	B	A

## HEALTH & SAFETY INFORMATION—NON HAZARDOUS

(Refer to MSDS for full information)

### GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on

Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

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### SHELF LIFE

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# quickset render

## Preparation render for walls

### DESCRIPTION

Pre-mixed rapid-setting polymer-modified cement/sand render mortar.

#### Use for

- Preparing WALL surfaces for installing ceramics, natural stone in dry or wet interior and exterior environments.
- Also suitable as a patch repair mortar.

#### PRODUCT INFORMATION

**Composition:** Single component polymer-modified cement:sand mortar.

**Colour:** Grey

**Pack size:** 25kg

**Key features:** Pre-blended and rapid-setting. Sets in 2 hours.

#### USAGE & SERVICE CONDITIONS

Walls	✓	Interior	✓
Exterior	✓	Dry	✓
Wet	✓		

#### BACKGROUNDS/BASES

Concrete/Brickwork/Blockwork	✓
Lightweight Concrete Blocks	✓
Glazed Tiles/Bricks	✓
Plaster surfaces	✓

Usage: Bed-thickness/Time at 20°C		
Bed-thickness	Pot Life	Setting Time
2-20mm	30mins	2 hours

\* Drying time will be extended in colder temperatures.

Usage: Tools/Coverage	
Recommended Application Tool	Typical Coverage <sup>^</sup> at 3mm Bed-thickness
Steel trowel	0.64m <sup>2</sup> /kg

<sup>^</sup> May vary dependent on nature and flatness of surface, and thickness of application.

## PREPARATION

Provide construction joints in accordance with normal rendering practice. Ensure surfaces are dry, sound, clean and free from grease, dust and any other contamination.

### SUITABLE SURFACES include:

#### Concrete, brickwork and blockwork:

Allow to dry for 6 weeks.

#### Glazed brickwork:

Score glazed brickwork to provide additional key, then apply slurry bonding coat (2 parts BAL QUICKSET RENDER to 1 part BAL BOND SBR by weight). Contact BAL Technical Advisory Service for further advice.

#### Plaster surfaces:

Ensure the plaster surface has dried for at least 4 weeks and is free from dust and debris. Prime with BAL APD undiluted and allow to dry before applying BAL QUICKSET RENDER.

#### Porous substrates:

Dampen down porous substrates before application of render.

NOTE: For information on anchored mesh reinforcement, contact Technical Advisory Service.

## MIXING

NOTE: Do not prepare more BAL QUICKSET RENDER than can be used in 20 minutes.

1. Add 7 parts powder to 1 part clean cold water by weight.
2. Mix until a smooth lump-free consistency is achieved.

NOTE: *If using electric drill mixer*, blend at slow speed (i.e. under 300rpm).

Ready for immediate use. Pot life at 20°C: approx. 30 minutes.

NOTE: Working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions.

### Usage procedure

1. Apply thin skim (1-2mm) bonding coat of BAL QUICKSET RENDER to wall substrate.
2. While this is still wet, apply single thick coat of BAL QUICKSET RENDER (min. 2mm up to max. 20mm as required) in accordance with normal rendering practice.
3. Between 40-60 minutes after application, finish using a wood float.

### Ensuring flat surface for tiling

4. Ensure rendered surface is sufficiently flat to permit specified finished tiling flatness, allowing for permissible minimum/maximum thickness of bedding material.
5. Using 2mm straightedge, check flatness of finished bedding: no gap underneath straightedge should exceed 3mm anywhere on surface (i.e. complying with SR1 of BS 5385 – Part 1:1995, clause 3.3.3, and Part 2:1991 clause 19.4).

### Tile fixing

Surfaces to be tiled should have a wood float finish.

At 20°C, BAL QUICKSET RENDER will be ready to receive tiling after 2 hours. Allow longer in cooler conditions.

Tiles may be laid directly onto the rendering using an appropriate BAL tile adhesive.

## **HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
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## **SHELF LIFE**

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## **QUALITY AND ENVIRONMENTAL STANDARDS**

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**Quickset Render**

# silicone

## Silicone Sealant

### DESCRIPTION

Flexible waterproof ready-to-use silicone sealant.

#### Use for

- Sealing movement joints in FLOOR and WALL tiling installations. For surfaces including acrylic, ceramic, fiberglass, glass, porcelain in dry or wet interior and exterior environments.
- Suitable for domestic/light commercial applications.

#### Restrictions: NOT suitable for

- Aquariums.

IMPORTANT NOTE: This product must NOT be used on sensitive surfaces that could react with acetic acids released during cure.

#### PRODUCT INFORMATION

**Composition:** Cement-based polymer-modified powder.

**Colours:** White, Cream, Transparent.

**Type/Classification:** Exceeds ISO 11600 and BS 5889 Type B requirements.

**Pack size:** 310ml cartridge

**Key features:** Firm bonding. Cures in 24 hours (per 4mm thickness).

*When fully cured:*

Good service temperature range (-50°C to +150°C).

#### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Wet	✓

Showers (1)	✓
Movement/Vibration	✓
Chemical Resistance	✓

(1) Do not use shower for at least 2 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.

#### APPLICATION AREAS

Breweries	✓
Leisure Centres	✓
Bathrooms	✓
Changing Rooms	✓
Restaurants/Food Consumption Areas	✓
Food/Drink Processing Plants	✓
Kitchens	✓
Domestic Kitchens	✓
Hospitals/Dental Practices/Veterinary Surgeries	✓
Clean Rooms	✓
Shopping Malls	✓

Coverage	
Bead Size	Typical Coverage <sup>^</sup>
6x6mm	2.83m/100ml

<sup>^</sup> Varies according to size of bead. Maximum bead size 25mm.

Temperature Resistance
-50°C to 150°C

## SURFACE PREPARATION

### General

Before sealing, ensure that all surfaces are clean, dry, free from dust, grease and any contaminants that may affect adhesion.

## APPLICATION

### Sealing procedure

*Recommended minimum joint depth:* 6mm. For most applications, use in 6x6mm cross section.

1. Cut off tip of cartridge, leaving thread intact.
2. Screw on nozzle.
3. Cut nozzle to required width and angle.
4. Place cartridge in caulking gun and apply steady bead of silicone to required area.
5. Within 10 minutes of application, smooth silicone with wet spatula or similar.
6. Allow to cure (approx. 24 hours per 4mm thickness).

## HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## TECHNICAL ADVISORY SERVICE

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## POWERSPEC

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## SHELF LIFE

12 months if stored in a dry place under normal dry frost-free conditions.

## QUALITY AND ENVIRONMENTAL STANDARDS

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## 25 YEAR GUARANTEE

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This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

Contact BAL Marketing Department for full details.

## CONDITIONS OF SALE

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[www.bal-adhesives.com](http://www.bal-adhesives.com)

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

 **Powerspec**  
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**Silicone**



# superflex

## Tile Grout for joints up to 5mm

### DESCRIPTION

Water/frost-resistant highly flexible cementitious tile grout for walls.

#### Use for

- Grouting porcelain, glazed and fully vitrified tiles, glass and ceramic mosaics, marble and natural stone in dry or wet interior and exterior environments.
- For joint widths: up to **5mm**
- Recommended for swimming pools, power showers and areas of limited movement.

#### Restrictions: NOT suitable for

- Food preparation/storage areas, and areas requiring waterproof grouting.

NOTE: Use a BAL Epoxy grout in these cases.

#### PRODUCT INFORMATION

**Composition:** Cement-based powder with built-in admixture.

**Colours:** White, Ivory

**Type/Classification:** Exceeds BS EN 13888 **CG2**

**Pack sizes:** 10kg and 3.5kg

**Key features:** Water/frost-resistant. Built-in admixture for increased flexibility and high bond strength at edges of tiles/mosaics.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Showers (1)	✓
Swimming Pools (2)			✓
Movement/Vibration			✓
Heavily Trafficked Floors			✓

(1) Use a BAL epoxy grout for power shower with body jets. Do not use shower for at least 2 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.

(2) Do not fill pool for at least 3 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.

Mix/Usage Data			
Powder:Water Ratio (by weight)	Pot Life at 20°C	Cure Time at 20°C*	Specific Gravity
4:1	30 mins	24 hours	1.40g/cm <sup>3</sup>

\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

Coverage		
Tile Size	Joint Width	Typical Coverage
150x150x6mm	2mm	4.59m <sup>2</sup> /kg
200x200x6mm	2mm	6.08m <sup>2</sup> /kg

Temperature Resistance
-30°C to 150°C

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging.
2. Open joints are protected from contamination – and are clean, dry and free from loose debris.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

*If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.*

*If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.*

*If grouting shower installations, BAL SUPERFLEX is water-resistant but NOT impervious to water and is not a substitute for tanking systems.*

**Recommendations (showers):**

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a water-resistant adhesive (e.g. BAL WHITE STAR, BAL MOSAIC-FIX or BAL SINGLE PART FLEXIBLE adhesive).

### MIXING

1. Slowly add 4 parts powder to 1 part clean cold water by weight (e.g. 1kg powder with 0.25 litres water). Mix until smooth paste formed.

**NOTE:** *If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

2. Wait 2-3 minutes, then briefly mix again. Avoid entraining air by mixing at too high speed or by over-mixing.

Mixed grout working time at 20°C: approx. 30 minutes.

**NOTE:**

Do NOT add more water to mixed grout as this would reduce final strength.

Working time/setting time will vary slightly with temperature:  
higher temperatures = shorter; lower temperatures = longer.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER – and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joints with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15 minutes for grout to dry before cleaning tile surface.
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth OR give surface final wash with dampened sponge and clean cold water.

**NOTE:** For maximum speed/ease, use a BAL Wash Boy.

6. Wait minimum 24 hours before subjecting tiles to normal service conditions.

**NOTE:**

*If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL Technical Advisory Service for further advice).*

*If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4:2009, clause 7.2.1 ).*

### CLEANING

Always use cleaning products suited to tile type. For best long-term antibacterial protection, regular cleaning with BAL MICROSHIELD TILE CLEANER is strongly recommended.

## **HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on  
Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **POWERSPEC**

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling. Visit [www.powerspeconline.com](http://www.powerspeconline.com)

## **SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

## **QUALITY AND ENVIRONMENTAL STANDARDS**

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

## **25 YEAR GUARANTEE**

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PorcelBond Plus™ is a trademark of Building Adhesives Ltd.

 **Powerspec**  
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**Superflex**





# superflex wide joint

## Tile Grout for joints 3mm-20mm

### DESCRIPTION

Water/frost-resistant highly flexible cementitious tile grout for walls and floors.

#### Use for

- Grouting porcelain, glazed and fully vitrified tiles, glass and ceramic mosaics, marble and natural stone in dry or wet interior and exterior environments.
- For joint widths: up to **3mm to 20mm**
- Recommended for swimming pools, and for limited movement areas including overlaid plywood floors (minimum 15mm) and heated screeds.

#### Restrictions: NOT suitable for

- Food preparation/storage areas, and areas requiring waterproof grouting.

NOTE: Use a BAL Epoxy grout in these cases.

#### PRODUCT INFORMATION

**Composition:** Cement-based powder with built-in admixture.

**Colours:** White, Ivory, Grey, Charcoal, Limestone, Sandstone

**Type/Classification:** Exceeds BS EN 13888 **CG2**

**Pack sizes:** 10kg and 3.5kg

**Key features:** Water/frost-resistant. Built-in admixture for increased flexibility and high bond strength at edges of tiles/mosaics.

### USAGE & SERVICE CONDITIONS

Walls	✓	Floors	✓
Interior	✓	Exterior	✓
Dry	✓	Showers (1)	✓

Swimming Pools (2)	✓
Movement/Vibration	✓
Heavily Trafficked Floors	✓

- (1) Use a BAL epoxy grout for power shower with body jets. Do not use shower for at least 2 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.
- (2) Do not fill pool for at least 3 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.

Mix/Usage Data			
Powder:Water Ratio (by weight)	Pot Life at 20°C	Cure Time at 20°C*	Specific Gravity
5:1	30 mins	24 hours	1.70g/cm <sup>3</sup>

\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

Coverage		
Tile Size	Joint Width	Typical Coverage
200x200x9mm	3mm	2.24m <sup>2</sup> /kg
300x300x9mm	3mm	3.33m <sup>2</sup> /kg

Temperature Resistance
-30°C to 150°C

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging.
2. Open joints are protected from contamination – and are clean, dry and free from loose debris.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

*If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.*

*If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.*

*If grouting shower installations, BAL SUPERFLEX WIDE JOINT is water-resistant but NOT impervious to water and is not a substitute for tanking systems.*

**Recommendations (showers):**

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a water-resistant adhesive (e.g. BAL WHITE STAR, BAL MOSAIC-FIX or BAL SINGLE PART FLEXIBLE adhesive).

### MIXING

1. Slowly add 5 parts powder to 1 part clean cold water by weight (e.g. 1kg powder with 0.2 litres water). Mix until smooth paste formed.

**NOTE:** *If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

2. Wait 2-3 minutes, then briefly mix again. Avoid entraining air by mixing at too high speed or by over-mixing.

Mixed grout working time at 20°C: approx. 30 minutes.

**NOTE:**

Do NOT add more water to mixed grout as this would reduce final strength.

Working time/setting time will vary slightly with temperature:  
higher temperatures = shorter; lower temperatures = longer.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER – and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joints with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15 minutes for grout to dry before cleaning tile surface.
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth OR give surface final wash with dampened sponge and clean cold water.

**NOTE:** For maximum speed/ease, use a BAL Wash Boy.

6. Wait minimum 24 hours before subjecting tiles to normal service conditions.

**NOTE:**

When grouting soft glazed wall tiles or tiles with a metal decor or lustre, care should be taken to ensure they are not damaged/scratched. If there is any doubt, a test area should first be grouted in an inconspicuous area.

*If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL Technical Advisory Service for further advice).*

*If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4:2009, clause 7.2.1).*

### CLEANING

Always use cleaning products suited to tile type. For best long-term antibacterial protection, regular cleaning with BAL MICROSHIELD TILE CLEANER is strongly recommended.

## **HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

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**Superflex Wide Joint**

# tile & grout

## Tile adhesive and grout for walls

### DESCRIPTION

Ready-mixed, non-slip water-resistant tile adhesive and grout for walls.

### Use for

- Fixing ceramics (up to 300x300mm), mosaics and some natural stone in dry or wet interior environments.
- For domestic areas including showers/kitchens/bathrooms.
- Suitable for heavy duty wet areas including communal showers and commercial kitchens.

### Restrictions: NOT suitable for

- Exterior use or total immersion areas (e.g. swimming pools).
- Not suitable for floors.
- Non-porous tiles.
- Bedding depths exceeding 3mm.
- Grouting for power showers or commercial applications.

### PRODUCT INFORMATION

**Composition:** Acrylic based organic dispersion

**Colour:** White

**Type/Classification:** Exceeds BS EN 12004 D2TE – Dispersion (ready-to-use), Improved / Additional Characteristics, Reduced Slip, Extended Open-Time

**Pack size:** 10ltr, 5ltr and 2.5ltr

### Key features:

- Ready-to use
- One product for both adhesive and grout (grout for domestic environments)
- Non-slip (no battens required)
- High bond strength

**Grout after:** 24 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✗
Interior	✓	Exterior	✗
Dry	✓	Wet (3)(6)	✓
Domestic	✓	Worktops	✓
Showers (a)(3)(6)		(1)	
Communal Showers	✗	Power showers	
		(3)(7)	

### BACKGROUNDS / BASES

Rendering	✓
Clay Brick / Medium Density Concrete (2)	✓
Sheets & Boards (3) (4)	✓
Tile Backer Boards (5)(6)	✓
Plasterboard (3)	✓
Plaster (3)	✓
Glazed Tile & Brick (6)	✓
Painted Surface (6)	✓

### USAGE: Bed Thickness / Time

Bed Thickness ^	Open Time*	Setting Time*
3mm max	20 mins	24 hours at 20°C

\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Area	Trowel	Coverage ^
Dry Wall	Round Notched	0.76m <sup>2</sup> per litre
Wet Wall	Thin Bed Solid Bed	0.38m <sup>2</sup> per litre

^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*

-30°C to 100°C

\*\* Cured adhesive.

(1) Tiles must be grouted using BAL EASYPOXY AG.

(2) Provided the surface is sufficiently flat.

(3) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(4) Seal back face and edges with undiluted BAL BOND SBR.

(5) Check suitability for the intended purpose with the manufacturer.

(6) Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

(7) When used with BAL SUPERFLEX or BAL MICROMAX2 GROUT.

### Note:

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4

## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. It is important the surface is to SR1 (+ or – 3mm or less over a 2 meter straight edge).

Class	MAXIMUM PERMISSIBLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

*In domestic shower areas:* waterproof background with BAL TANK IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM. NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### SUITABLE SURFACES include:

#### Clay Brickwork/dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1).

NOTE: Direct fixing of tiles to lightweight blockwork is NOT recommended.

#### Cement:sand renders

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete block walls/clay brickwork: 6 weeks
- Cement:sand rendering: 2 weeks

#### BAL QUICKSET CEMENT: rendering

- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency**

**BAL QUICKSET RENDER: 2 hours**

#### Existing glazed ceramic tiles/glazed bricks

Ensure existing tiles/bricks are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Do NOT seal or prime surfaces to be tiled.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plywood/chipboard/ sheets (walls) (internal dry areas only)

Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup> ; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry. Do NOT prime surfaces to be tiled.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (diluted 1:1 by volume with clean water) or
- BAL BOND SBR (diluted 1:4 by volume with clean water)

Allow each coat of primer to dry.

Typical weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

NOTE: When priming, drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Typical weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Painted surfaces

Remove all loose and flaking paint.

Check by applying a suitable self-adhesive tape to clean dry paint surfaces. Tear off tape after 10 mins. If paint is removed with the tape, the paint is unsound.

Remove unsound paint mechanically. Do NOT use paint strippers.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions. If fixing larger format tiles (advised up to max. 300x300mm or fixing onto a non-porous background (e.g. tiles), drying times will be extended.

For larger size tiles contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
Mosaics (up to 100x100mm tiles)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction.

*If fixing large (300x300mm maximum)/heavily-patterned tiles, apply additional adhesive to tile reverse (DO NOT apply over 3mm maximum).*

2. For *mosaics*: using a rubber tile float, press mosaics into adhesive and beat into required position, ensure joints between sheets match joints between mosaic tesserae (i.e. staggered).

For tiles: press tile firmly into the ribs of adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.

3. Fix mosaics/tiles before adhesive forms skin (typically over 20 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer).

4. Occasionally lift a mosaic/tile to check adhesive contact are 50% coverage for dry areas; min. 100% coverage for wet areas (i.e. When solid-bed fixing, leave no voids behind tiles).

5. Leave adequate joints between individual tiles unless self-spacing tiles used.

6. Install movement joints to BS 5385, Parts 1-5.

7. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

7. After tiling on porous surfaces, allow adhesive to set before grouting – typically 24 hours.

8. Work in small areas with a BAL GROUT FLOAT or rubber squeegee. Completely fill tile joints with BAL TILE & GROUT and compact well, removing excess grout from tile surface as work proceeds.

9. Using a dampened sponge or sponge board, carefully clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water.

10. When grout has set sufficiently within joints, polish tile surface with dry clean cloth OR give surface final wash with dampened sponge and clean cold water.

11. Wait minimum 24 hours before subjecting tiles to normal service conditions\*.

12. Fill movement joints and seal around baths/shower trays with BAL MICROMAX SILICONE SEALANT.

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

*If grouting in food preparation areas or Power showers or wherever waterproof grout required, use a suitable BAL Epoxy grout i.e. BAL EASYPOXY AG. Do NOT use BAL TILE & GROUT.*

## HEALTH & SAFETY INFORMATION / GOOD

### PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

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### SHELF LIFE

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*Contact BAL Marketing Department for full details.*

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

PorcelBond Plus™ is a trademark of Building Adhesives Ltd



# white star *plus*

## Non-Slip, Water-Resistant Tile Adhesive for Walls, with FST

### DESCRIPTION

High strength, highly flexible, non-slip, water-resistant ready-mixed tile adhesive for walls.

### Use for

- Fixing ceramics (up to 300x300mm), mosaics, porcelain tiles (up to 150 x 150mm) and some natural stone in dry or wet interior environments.
- For domestic and commercial areas including showers/kitchens/bathrooms/wet rooms.
- Suitable for heavy duty wet areas including communal showers and commercial kitchens.
- Suitable for use on backgrounds subject to limited movement/vibration.

### Restrictions: NOT suitable for

- Exterior use or total immersion areas (e.g. swimming pools).
- Some non-porous tiles (depending on size /background).
- Bedding depths exceeding 3mm.

### PRODUCT INFORMATION

**Composition:** Acrylic based organic dispersion with BAL Fibre Strand Technology (FST).

**Colour:** White

**Type/Classification:** Exceeds BS EN 12004 D2TE – Dispersion (ready-to-use), Improved / Additional Characteristics, Reduced Slip, Extended Open-Time

**Pack size:** 10ltr, 5ltr and 2.5ltr

### Key features:

- Improved super white ready-to-use/easy to apply
- Extended open-time (over 30mins)
- Highly water-resistant
- Highly flexible
- Excellent non-slip (no battens required)
- High bond strength
- Lightweight rheology for improved consistency and smoother formulation
- Higher grab, improved strength and higher flexibility to improve adhesive performance.
- Suitable for porcelain tiles (up to 150mm x 150mm)

**Grout after:** 24 hours (at 20°C)

### USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✗
Interior	✓	Exterior	✗
Dry	✓	Wet (3)(6)	✓
Domestic	✓	Worktops	✓
Showers (a)(3)(6)	✓	(1)	
Communal	✓		
Showers (a)(3)(6)			

### BACKGROUNDS / BASES

Rendering	✓
Clay Brick / Medium Density Concrete (2)	✓
Sheets & Boards (3) (4)	✓
Tile Backer Boards (5)(6)	✓
Plasterboard (3)	✓
Plaster (3)	✓
Glazed Tile & Brick (6)	✓
Painted Surface (6)	✓

### USAGE: Bed Thickness / Time

Bed Thickness ^	Open Time*	Setting Time*
3mm max	>30 mins	24 hours at 20°C

\* Open time/setting time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

### COVERAGE

Area	Trowel	Coverage ^
Dry Wall	Round Notched	0.66m <sup>2</sup> per litre
Wet Wall	Thin Bed Solid Bed	0.5m <sup>2</sup> per litre

^ May vary dependent on nature and flatness of surface, and on trowel used.

### TEMPERATURE RESISTANCE\*\*

-30°C to 100°C

\*\* Cured adhesive.

(1) Tiles must be grouted using BAL EASYPOXY AG.

(2) Provided the surface is sufficiently flat.

(3) In wet conditions tank out with BAL TANK IT or BAL WATERPROOFING KIT FOR SHOWERS.

(4) Seal back face and edges with undiluted BAL BOND SBR.

(5) Check suitability for the intended purpose with the manufacturer.

(6) Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Note:

(a) Do not use shower for at least 2 weeks after completion of grouting – BS 5385:Part 4



## SURFACE PREPARATION

### General

Ensure surfaces to be tiled are flat, clean, dry, sound and free from contamination.

#### Surface regularity:

Surface Regularity is defined as the deviation in height of the surface over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface. It is important the surface is to SR1 (+ or – 3mm or less over a 2 meter straight edge).

Class	MAXIMUM PERMISSABLE DEVIATION FROM a 2M STRAIGHT EDGE (MM)	APPLICATION
SR1	3mm	Recommended for direct fixing of tiles and slabs with a tile adhesive

*In shower areas:* waterproof background with BAL TANK IT, BAL WATERPROOFING KIT FOR SHOWERS or BAL WP1 TANKING SYSTEM. NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### SUITABLE SURFACES include:

#### Clay Brickwork/dense concrete/blockwork walling

Allow new block mortar to dry for minimum 6 weeks before rendering /plastering. If direct fixing tiles, wall must be smooth-faced and providing the surface is sufficiently flat (SR1).

NOTE: Direct fixing of tiles to lightweight blockwork is NOT recommended.

#### Cement:sand renders

Before tiling, ensure that the substrate is flat (SR1), free from efflorescence, laitance, dirt, polished concrete and other loose materials. Remove by the use of suitable mechanical methods (see BAL TECHNICAL DATA SHEET on BAL BOND SBR or BAL PRIME APD for priming information).

Allow the following minimum drying times:

- Concrete block walls/clay brickwork: 6 weeks
- Cement:sand rendering: 2 weeks

#### BAL QUICKSET CEMENT: rendering

- Rendering (bonded): 4 hours\*\*

#### BAL BOND SBR SLURRY

**\*\*1 part sand to 1 part BAL QUICKSET CEMENT by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency**

**BAL QUICKSET RENDER: 2 hours**

#### Existing glazed ceramic tiles/glazed bricks

Ensure existing tiles/bricks are soundly bonded to a stable background that is sufficiently strong enough to support the weight of the new tiling.

If areas are loose or hollow-sounding, remove and make good with BAL QUICKSET RENDER or 1:3 cement:sand mortar over a slurry bonding coat (1 part sand to 1 part cement by weight, mixed with appropriate amount of BAL BOND SBR pre-diluted 1:1 with clean cold water to achieve desired consistency).

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Fibre reinforced cement boards and lightweight tile backer boards

Install boards to BS 5385 – i.e. moisture-resistant boards screwed to seasoned timber or suitable proprietary framework at maximum 300mm centres vertically and horizontally or as per the board manufacturer's recommendations. Ensure no fixings protrude.

Do NOT seal or prime surfaces to be tiled.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

IMPORTANT NOTE: Obtain manufacturer's confirmation that boards are suitable for tiling and for relevant fixing instructions.

### Plywood/chipboard/ sheets (walls) (internal dry areas only)

Ensure boards (i) capable of supporting the tiled finish i.e. the weight of tiling should not exceed 30kg per m<sup>2</sup> ; (ii) are sufficiently dry, rigid and securely fixed, with no protruding fixings (iii) are free from any surface contamination incompatible with adhesion. Using a suitable water resistant grade plywood, min. 12mm thick, Insert noggings to support all board edges and to allow screw (not nailed) fixing at 300mm centres. Seal timber surface on the underside and edges with undiluted BAL BOND SBR. Allow to dry. Do NOT prime surfaces to be tiled.

### Plaster (finish coat only)

Must be at least 4 weeks old before tiling. Ensure that the plaster is free from dust, laitance and friable material.

If *plaster is shiny or polished*, brush thoroughly with a stiff bristled brush before priming with 2 coats of (second coat applied at 90° to the first):

- BAL PRIME APD (diluted 1:1 by volume with clean water) or
  - BAL BOND SBR (diluted 1:4 by volume with clean water)
- Allow each coat of primer to dry.

Weight restrictions for tiling onto plaster i.e. a maximum weight of 20kg/m<sup>2</sup>.

NOTE: When priming, drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

### Plasterboard (If required)

Ensure boards are dry, securely fixed and rigid and suitable thickness used.

NOTE if the plasterboard is dot and dabbed at 300mm centres and around the perimeter, leave to dry before fixing tiles.

Typical weight restrictions for tiling onto plasterboard i.e. a maximum weight of 32kg/m<sup>2</sup>.

### Painted surfaces

Remove all loose and flaking paint.

Check by applying a suitable self-adhesive tape to clean dry paint surfaces. Tear off tape after 10 mins. If paint is removed with the tape, the paint is unsound.

Remove unsound paint mechanically. Do NOT use paint strippers.

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days before grouting.

## APPLICATION/USAGE

Do NOT use in temperatures below 5°C or in damp conditions. If fixing larger format tiles (advised up to max. 300x300mm) or porcelain tiles (up to 150x150mm) or fixing onto a non-porous background (e.g. tiles), drying times will be extended. For larger size tiles contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	<b>BAL ROUND NOTCHED</b>
Internal Wet Wall Area (up to 300x300mm tiles)	<b>BAL THIN BED SOLID BED</b>
Mosaics (up to 100x100mm tiles)	<b>BAL MOSAIC TROWEL</b>

NOTE: ensure you achieve the correct of adhesive to both the background and tile in line with BS 5385, Parts 1-5.

### Fixing procedure

1. Apply adhesive to wall surface and comb to required bed thickness ensuring the ribs of adhesive all run in one direction. If fixing large (300x300mm maximum)/heavily-patterned tiles, apply additional adhesive to tile reverse (DO NOT apply over 3mm maximum).
2. For mosaics: using a rubber tile float, press mosaics into adhesive and beat into required position, ensure joints between sheets match joints between mosaic tesserae (i.e. staggered).  
For tiles: press tile firmly into the ribs of adhesive and into position, with slight twisting/sliding action to ensure optimum adhesive contact.
3. Fix mosaics/tiles before adhesive forms skin (typically over 30 minutes at 20°C, depending on surface porosity /atmospheric conditions). If skin has formed, remove adhesive and apply fresh layer).
4. Occasionally lift a mosaic/tile to check adhesive contact are 50% coverage for dry areas; min. 100% coverage for wet areas (i.e. When solid-bed fixing, leave no voids behind tiles).
5. Leave adequate joints between individual tiles unless self-spacing tiles used.
6. Install movement joints to BS 5385, Parts 1-5.
7. Clean off surplus adhesive from tile face and between tile joints before the adhesive has dried.

### Grouting

1. Waiting minimum 24 hours (at 20°C) after tile fixing. Select a BAL cementitious or Epoxy grout such as BAL MICROMAX2 GROUT or BAL EASYPOXY AG GROUT.  
NOTE: If tiling on an impervious background (e.g. existing tiles or primed areas) and/or fixing larger format tiles (up to 300x300mm) or porcelain tiles (up to 150x150mm), delay grouting for min. 3 days, to allow for extended setting time.
2. Fill movement joint and seal around bath/shower trays with suitable sealant i.e. BAL MICROMAX SILICONE SEALANT. However, do NOT use on sensitive surface that could react to acetic acids released during cure.

If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4, clause 7.2.1).

## HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### POWERSPEC

A unique computerised online specification system for the design and installation of ceramic, mosaic and natural stone tiling.

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### SHELF LIFE

12 months under normal dry conditions. Protect from frost and damp.

### QUALITY AND ENVIRONMENTAL STANDARDS

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

### 25 YEAR GUARANTEE

All BAL products are supplied with a 25 year product guarantee to be free from manufacturing defects and to be fit for purpose. The guarantee covers materials replacement costs and labour.

This guarantee is subject to use of product in accordance with BAL's instructions and technical data, and good working practice. No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. 10 year anti-fungal guarantee subject to regular cleaning.

Contact BAL Marketing Department for full details.

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. Available on request.

For sales and technical queries, contact:

### BUILDING ADHESIVES LTD

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# wide joint

## Tile Grouts for joints 2mm-12mm

### DESCRIPTION

Water/frost-resistant cementitious tile grout for walls and floors.

#### Use for

- Grouting ceramics, mosaics and natural stone/quarry tiles in dry or wet interior and exterior environments.
- For joint widths: **2mm to 12mm**.
- Recommended for swimming pools.
- Further applications are possible by adding BAL ADMIX GT1 to provide flexibility, increased adhesion and reduced water permeability. Ratios:
  - For a single layer of timber or overlay less than 15mm thick BAL ADMIX GT1 (diluted 1:1 with water)
  - For plywood overlay (minimum 15mm) and to make suitable for porcelain tiles BAL ADMIX GT1 (diluted 1:2 with water)

#### Restrictions: NOT suitable for

- Power showers, food preparation/storage areas, and areas requiring waterproof grouting.

NOTE: Use a BAL Epoxy grout in these cases.

#### PRODUCT INFORMATION

**Composition:** Cement-based polymer-modified powder.

**Colours:** White, Ivory, Grey, Charcoal, Limestone, Sandstone

**Type/Classification:** Exceeds BS EN 13888 **CG1**

**Pack sizes:** 10kg and 3.5kg

**Key features:** Water/frost-resistant.

### USAGE & SERVICE CONDITIONS

Walls ✓	Floors ✓
Interior ✓	Exterior ✓
Dry ✓	Showers (1) (2) ✓
Swimming Pools (3) ✓	
Movement/Vibration (4) ✓	
Heavily Trafficked Floors (4) ✓	

- (1) Do not use shower for at least 2 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.1.  
 (2) Not recommended for use in power showers.  
 (3) Do not fill pool for at least 3 weeks following completion of grouting – BS 5385:Part 4:2009, clause 7.2.10.  
 (4) When used in conjunction with BAL ADMIX GT1.

Mix/Usage Data			
Powder:Water Ratio (by weight)	Pot Life at 20°C	Cure Time at 20°C*	Specific Gravity
5:1	30 mins	24 hours	1.67g/cm <sup>3</sup>

\* Drying time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

Coverage		
Tile Size	Joint Width	Typical Coverage
200x200x9mm	3mm	2.29m <sup>2</sup> /kg
300x300x9mm	3mm	3.39m <sup>2</sup> /kg

Temperature Resistance
-30°C to 150°C

## SURFACE PREPARATION

### General

Before grouting, ensure that:

1. Tile adhesive has fully set, as indicated on adhesive packaging.
2. Open joints are protected from contamination – and are clean, dry and free from loose debris.

**IMPORTANT NOTE:** Do NOT use in temperatures below 5°C or in damp conditions.

*If grouting porous tiles in temperatures above 25°C, dampen joints with clean water prior to grouting.*

*If grouting externally, provide protection against inclement weather during grouting and for as long as possible afterwards.*

*If grouting shower installations, BAL WIDE JOINT is water-resistant but NOT impervious to water and is not a substitute for tanking systems.*

*Recommendations (showers):*

- Provide waterproof tanking protection for tiling background substrates, particularly plaster or plasterboard (e.g. by using BAL WATERPROOFING KIT FOR SHOWERS).
- Ensure tiles are fixed with a water-resistant adhesive (e.g. BAL WHITE STAR or BAL SINGLE PART FLEXIBLE adhesive).

### MIXING

1. Slowly add 5 parts powder to 1 part clean cold water by weight (e.g. 1kg powder with 0.2 litres water). Mix until smooth paste formed.

**NOTE:** *If using electric drill mixer, blend at slow speed (i.e. under 300rpm).*

2. Wait 2-3 minutes, then briefly mix again. Avoid entraining air by mixing at too high speed or by over-mixing.

Mixed grout working time at 20°C: approx. 30 minutes.

**NOTE:**

Do NOT add more water to mixed grout as this would reduce final strength.

Working time/setting time will vary slightly with temperature: higher temperatures = shorter; lower temperatures = longer.

## APPLICATION

### Grouting procedure

1. Check potential staining risk: apply grout to a few tiles in small trial area. If discolouration occurs or difficulties are encountered with cleaning off (surplus grout), apply BAL PROTECTIVE SEALER – and repeat trial.
2. Work in small areas with a BAL GROUT FLOAT or squeegee. Completely fill tile joints with mixed grout and compact well, removing excess grout from tile surface as work proceeds.
3. Allow approx. 15 minutes for grout to dry before cleaning tile surface.
4. Using a dampened sponge or sponge board, clean surface diagonally to grout lines. Rinse out sponge/sponge board frequently with clean water.
5. When grout has set sufficiently within joints, polish tile surface with dry clean cloth OR give surface final wash with dampened sponge and clean cold water.

**NOTE:** For maximum speed/ease, use a BAL Wash Boy.

6. Wait minimum 24 hours before subjecting tiles to normal service conditions.

**NOTE:**

When grouting soft glazed wall tiles or tiles with a metal decor or lustre, care should be taken to ensure they are not damaged/scratched. If there is any doubt, a test area should first be grouted in an inconspicuous area.

*If completing a swimming pool, do NOT fill pool for at least 3 weeks after grouting (contact BAL Technical Advisory Service for further advice).*

*If completing a shower, do NOT use shower for at least 2 weeks (as required by BS 5385: Part 4:2009, clause 7.2.1).*

### CLEANING

Always use cleaning products suited to tile type. For best long-term antibacterial protection, regular cleaning with BAL MICROSHIELD TILE CLEANER is strongly recommended.

## **HEALTH & SAFETY INFORMATION/ GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

## **TECHNICAL ADVISORY SERVICE**

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 **Powerspec**  
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**Wide Joint**

# AquaDrain® EK

**Capillary passive drainage system for tiles and natural stone in external areas**

## DESCRIPTION

High-performance, capillary passive surface drainage system for tiles and natural stone fixing on balconies, patios and roof terraces when combined with a recommended drainage mortar or epoxy mortar/screed from BAL. For in-depth application guidance and technical drawings please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Product Properties and Benefits

- A complete support, drainage and protection system for external areas.
- Rapidly drains seepage water and provides 3-dimensional water management.
- Compensates for the insufficient drainage capacity of single-grain mortars.
- Inhibits rising trapped moisture thereby avoiding discolouration of the surface of moisture-sensitive coverings. Also helps reduce risk of efflorescence.
- Guarantees the fastest possible drying out of the covering and the bedding layer. (Drainage mortar)
- Ensures efficient drainage for barrier-free/low door connections in a system using AquaDrain® drain grates.
- Note: Can reduce footfall noise to 30 dB when used as part of a total construction, (see test report BL 01-07515; Construction Acoustics Laboratory, University of Rhein-Main dated 05.04.2015).

### Suitable Coverings:

- Natural stone and concrete pavers, extruded and dry pressed ceramic tiles. For laying coverings exposed to the weather, using only those materials that have been tested and are classed as both frost resistant and suitable for external use. Stone susceptible to dishing or curling due to contact with water should not be used externally such as BAL RAPIDSET FLEXIBLE FIBRE, BAL RAPIDSET FLEXIBLE or BAL STONE AND TILE PTB.

## PRODUCT INFORMATION

**Composition:** AquaDrain® EK drainage rolls/sheets consist of non-rotting plastic (Polypropylene) membranes with channel-like profiles lengthwise and across, on the upper and lower side, pressure resistant, in 8 mm and 16 mm thickness. A fine mesh glass fibre weave is laminated onto the upper side.

**Colour:** Blue

**Pack sizes:** 10 m rolls, 20 m<sup>2</sup> packs of 1x2 m sheets (8 mm only)

**Sheet Width:** 1m plus 50mm overlapping

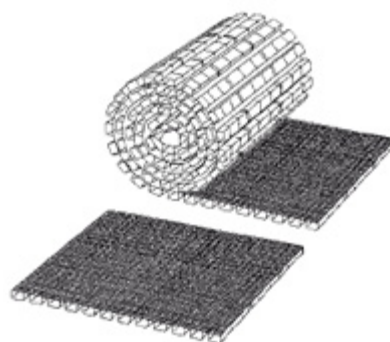
**Sheet Thickness:** 8 mm and 16 mm (8 mm only for sheets)

**Roll Weight:** approx. 9kg

**Sheet Pack Weight :** approx. 17kg

### Additional Information:

- Static pressure tolerance: 2,000 kg/m<sup>2</sup>
- Contact area: approx. 66%
- Height of structure including tiles from 78 mm with 50 mm cement-based mortars, and 43 mm with MorTech DRAIN single grain mortar from 25 mm thickness.
- Store horizontally; keep in their closed original packaging. Do not store in direct sunlight. Protect against pressure.
- Drainage performance: see page 2.



## DRAINAGE PERFORMANCE

According to DIN EN ISO 12958 "Determination of water flow capacity within the plane" (Item 5.1a), 08/2010. SKZ-TeConA GmbH Würzburg test report 112155/14-II (TBC)

AquaDrain® EK 8 mm  
Gradient Fall Drainage performance

i = 1.0 = 100 %\* 4.35 l/(mxs)

i = 0.1 = 10 %\* 1.35 l/(mxs)

i = 0.015 = 1.5 % 0.50 l/(mxs)

AquaDrain® EK 16 mm  
Gradient Fall Drainage performance

i = 1.0 = 100 %\* 9.33 l/(mxs)

i = 0.1 = 10 %\* 2.98 l/(mxs)

i = 0.015 = 1.5 % 1.16 l/(mxs)

## TEMPERATURE RESISTANCE

-30°C to 70°C **N.B** Tiling should not be carried below 5°C

Minimum Thickness						Minimum Height of Structure	
Bedding/Drainage screed	Mat Thickness	Concrete Slabs	Stone	Ceramic		Concrete Slabs/Stone	Ceramic
Cement-based Mortar (BAL QUICKSET CEMENT)	Min. 50 mm	8 mm	Min. 20 mm	Min. 20 mm	Min. 10 mm	> 78 mm	> 68 mm
	Min. 50 mm	16 mm	Min. 20 mm	Min. 20 mm	Min. 10 mm	> 86 mm	> 76 mm
MorTech DRAIN single grain	Min. 25 mm	8 mm	Min. 20 mm	Min. 20 mm	Min. 10 mm	> 53 mm	> 43 mm

## INSTALLATION INSTRUCTIONS

NOTE: For further information on installation please refer to Part B Installation Guide or contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Application 1 – For conventional cement-based mortar/drainage screeds

#### Substrates/Concrete

Falls should be between 1 -2 % and equivalent to (SR1)

*Surface regularity (SR):*

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the screeded surface.

Falls of 2 % or greater may require slip-proofing in line with the current codes of practice.

Falls of 1 % or less:

- Can encourage higher water load on the seals and covering
- Can make higher demands on surface regularity than required by British Standards in order to prevent backfalls.

Falls of less than 1 % can cause the following:

- Higher water loading
- More risk of encouraging water to the building.
- Pooling or ponding of water
- Water staining of porous covering materials.
- Increased risk of ice formation.
- Void formation.

Barrier-free door connections/thresholds must always be formed with a minimum fall of  $\geq 1.0$  %, preferably  $\geq 1.5$  %, in order to ensure sufficiently rapid draining off of any façade or surface water via the AquaDrain® surface drains.

Must be load-bearing, rigid and not resilient or compressive. For seals on balconies/patios/roof terraces according to BS 5385 Part 3 – 5.5 Separating Layers and G.8 Separating Layer (unbonded method), e. g. made of PE membrane with a minimum thickness of 0.125mm should be used for most conditions.

Thermal insulation needs to have a pressure resistance of  $\geq 120$  k/Pa.

#### Installation:

##### Selection of appropriate mat thickness: 8 mm & 16 mm

1. AquaDrain® EK rolls are laid on suitable substrates with the mesh side up, preferably with the drainage channels pointing in the direction of the main fall.
2. The overlapping mesh covers the joints between the lengths, ensuring that none of the single-grain mortar can enter the drainage channels.
3. Other joint areas are covered and adhered with the self-adhesive AquaDrain® SK joint tape.
4. To join all adjacent construction elements, AquaDrain® EK is to be laid with a 10 mm expansion joint. To ensure freedom of movement of the subsequent covering structure and to protect against the entry of mortar behind/underneath the surface drainage, the AquaDrain® RD edge insulation strip with self-adhesive foot is to be applied to AquaDrain® EK. The perforation of the self-adhesive foot ensures permeability, so that seepage water is transferred to the surface drainage.



Always check the suitability of the covering for use externally with the manufacturer.

Further instructions: While work is being carried out, the drainage mats are to be protected in the areas of transport pathways etc. with planks/walk boards.

#### **Drainage mortar/screeds**

BAL QUICKSET CEMENT is recommended as a binder for the load distribution layer made up of single grain mortar, please refer to BAL TECHNICAL DATA SHEET FOR MIXING INSTRUCTIONS.

Greater thickness is required for the load distribution layers in order to achieve comparable bending/tensile strength with standard screeds. Ready-made dry mortars can, according to the manufacturers, be used from 50 mm upwards. The minimum thickness of the load-bearing layer made from on-site mixtures should, according to the Technical Construction Information on Natural Stone (Bautechnischer Information Naturwerkstein) 1.4 (status May 2008), be at least 60mm. (Bending tensile strengths must be demonstrated).

If the load-bearing single grain mortar layer has to be reinforced (when mortar is over 50mm in thickness), only corrosion protected or corrosion-resistant reinforcement mats are permitted. The stainless steel surface grid is to be installed for this purpose. Overlaps must be at least 50 mm wide.

Expansion joints are to be installed in line with the current codes of practice/British Standards for external tiling.

AquaDrain® RD edge insulation strip with self-adhesive foot is available for ensuring the required freedom of movement of the expansion joints.

Tiles and Natural stone laid on single grain mortar and on screeds must be bonded with a suitable tile adhesive applied across the whole screed surface and on the back of the tile (Backbuttered).

#### **Open edge areas with drip edges**

##### **1. Surface seal not yet present:**

- a. Exposed covering edges should be bordered with the ProFin® drain and drip profile. The cross-section of the covering construction can be masked by the ProFin® push-in facing plate.
- b. For easier assembly, use a suitable Multi-Purpose Construction Adhesive and Sealant to fix the drain end profile. The fixing strips should be arranged with spacing of approx. 300mm between strips, running in the direction of the substrate fall.
- c. The system profiles must each be bolted through the outer most punched hole. Other bolts should be placed at approx. 500 mm intervals.

##### **2. Surface seal already present:**

- a. These are to be bordered with the ProFin® V55 drain edge profiles. The application of AquaDrain® EK and single grain mortar/drainage screed is the same installation process as in Point 4 above.
- b. ProFin® V55 drain end profiles are to be mounted flush in height and aligned in the fresh screed mortar or fixed in advance onto the AquaDrain® EK surface drainage using quick adhesion mortar. Neighbouring edging end profiles are to be installed in the joint area (ProFin® profiles every 3m) with a spacing of 1 – 2mm between. The gap is covered with ProFin® profile connectors. Where field edging joints meet ProFin® profiles, this edging end profile is to be separated with an approx. 10mm expansion joint and the joint area also covered with ProFin® profile connectors.



## **Application 2 – For thin-layer special single grain mortar from 25 mm layer thickness in the MorTec® DRAIN system**

NOTE: For further information on installation please refer to Part B Installation Guide or contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### **Substrates**

Need to have a minimum fall of 1.0 %. Welded bitumen lengths are not approved due to the raised overlapping joints.

For roof terraces and built-over rooms, single layer plastic membranes or alkali-resistant liquid plastic seals are to be used.

Thermal insulation must have a pressure resistance of  $\geq 120$  kPa and must be laid on/adhered to the substrate in a non-deflecting or stable manner.

### **Screeds**

Only epoxy resins of agreed grain fraction can be used as binders such as MorTec® DRAIN . The MorTec® DRAIN drainage mortar/drainage screed system harmonises with the system and has been tested. Please refer to BAL TECHNICAL DATA SHEET FOR MIXING INSTRUCTIONS.

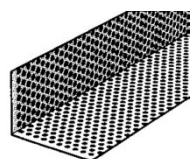


Standard drainage screeds require layer thicknesses of at least 50 mm (DNV Technical Construction Information 1.4). In the MorTec® DRAIN system, layer thicknesses from 25 mm are sufficient. This results in saving on level height and surface weight of about 60 %.

Thin layer single grain mortars on an epoxy resin base for flat covering constructions (balconies and patios) are as a general rule to be executed as screeds laid in advance and after curing, the covering is to be laid using suitable adhesive mortars such as BAL RAPIDSET FLEXIBLE FIBRE, BAL RAPIDSET FLEXIBLE or BAL STONE AND TILE PTB.

### **Edge area**

The ProFin DP 11 and 21 mm height and the ProFin BL 24 facing plate (in 24mm height) are available for thin later drainage screeds.

## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain EK drainage mat or sheet</b> 	<b>DiProTec AB-KV sealing tape</b> 	<b>AquaDrain SK joint tape</b> 	<b>AquaDrain Edge insulation tape</b> 
<b>AquaDrain TM or FLEX drain grate</b> 	<b>AquaDrain Lochwinkel Screed Angle</b> 	<b>ProRin BR guttering</b> 	<b>ProFin DP edge profile and BL facing plate</b> 
<b>ProFin V22/55 drip/drain edge profile</b> 	<b>BAL Quickset Cement</b> 	<b>MorTec DRAIN</b> 	<b>BAL Rapidset Flexible Fibre</b> 
<b>BAL Micromax2 Grout</b> 	<b>MorTec SOFT silicone sealant</b> 	<b>BAL Micromax Sealant</b> 	<b>BAL Tank-it</b> 

**N.B** Please consult BAL Technical Advisory and Specification Service (TAS) or a member of the BAL specification support team for a full and comprehensive product specification to meet your project requirements.

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **SHELF LIFE**

No shelf life when stored under correct conditions. On side of the rolls there is an overlapping mesh of 5 cm. You must not store it with the mesh down. Protect from frost, damp and sunlight.

## **6 YEAR GUARANTEE**

Since 1990, GUTJAHR has been the only manufacturer to offer extended warranties for its drainage systems, e.g. 6 years for balconies, patios and outdoor steps with AquaDrain® drainage.

No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control.

*Contact BAL Marketing Department for full details.*

## **CONDITIONS OF SALE**

Sold subject to the Company's Conditions of Sale. *Available on request. For sales and technical queries, contact:*

## **BUILDING ADHESIVES LTD**

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB,  
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Northwest Business Park  
Ballycoolin, Dublin 15, Ireland  
Tel: +353 (0) 1 880 9210  
Fax: +353 (0) 1 880 9211

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# AquaDrain® FLEX and accessories

Height adjustable drain grates for external tiling systems.

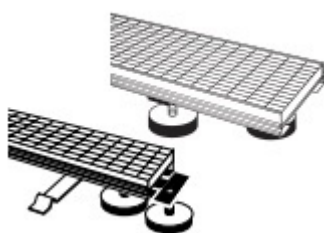
## DESCRIPTION

AquaDrain® FLEX drain grate guides surface water directly into the drainage matting. This helps solve connection problems even for low door/wall connections and prevents internal water seepage. For full application advice and technical drawings please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

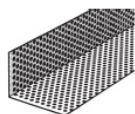
### Product Properties and Benefits

- Use in front of doors, floor-level window elements or for in-line drainage.
- Adjustable sliding feet mean that AquaDrain® FLEX drain grates only have to be cut to the required length on site.
- Provides quick and direct guidance of surface and façade water into the surface drainage system.
- Can be used with AquaDrain® EK drainage matting.
- Integral dirt trap protection against fouling and prevents build up.
- Simple, precise height adjustment to the covering by screw feet that can be adjusted from above.
- Maximises drainage performance.
- Allows for practical and standard-compliant reduction of door threshold heights from 150mm to 50mm.

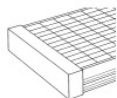
AquaDrain® FLEX



AquaDrain® Lochwinkel



AquaDrain® FLEX End Cap



## PRODUCT INFORMATION

### AquaDrain® FLEX

**Composition:** Stainless steel, hot-dipped galvanised or stainless steel.

#### Dimensions:

**Basic unit 100:** Width 100mm x Length 1000mm, 2 double sliding feet 100 mm

**Extension unit 100:** Width 100mm x Length 1000mm, 1 double sliding foot 100mm

#### Grids:

Frame material - hot dip galvanised or stainless steel, mesh width 30/10mm

Square design – stainless steel

Profile design – stainless steel

**Length:** can be adjusted to various sizes up to 280mm (basic unit) or 400mm (extension unit)

#### Height adjustment:

Height adjustable:

FLEX: 73–97mm (with XL screw feet 155–175mm)

**Minimum installation height:** 50mm - if the foot thread is cut to size on site

Note: For marine installations stainless steel grade 316 is recommended.

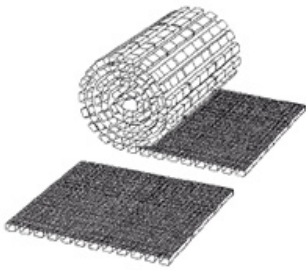

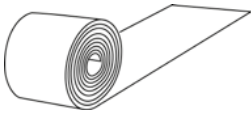
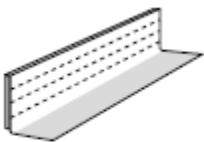
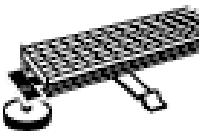
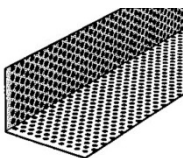










### AquaDrain® Lochwinkel perforated screed angle

**Composition – powder coatedgalvanized steel or plastic**

**Dimensions - 70mm/50mm x 1000mm (plastic), 30/40mm x 1.000mm (powder-coated steel).**

**AquaDrain® FLEX end cap – stainless steel.**

## Optional System Components

<b>AquaDrain® EK drainage mat or sheet</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® FLEX drain grate XL screw feet</b> 	<b>AquaDrain® Lochwinkel Screed Angle</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 
<b>ProFin® V22/55 drip/drain edge profile</b> 	<b>BAL Quickset Cement and Aggregate</b> 	<b>MorTec® DRAIN</b> 	<b>BAL Rapidset Flexible Fibre</b> 
<b>BAL Micromax2 Grout</b> 	<b>MorTec® SOFT silicone sealant</b> 	<b>BAL Micromax Sealant</b> 	<b>BAL Tank-it</b> 

**N.B** Please consult BAL Technical Advisory and Specification Service (TAS) or a member of the BAL Specification Support Team for a full and

comprehensive product specification to meet your project requirements.

## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **SHELF LIFE**

No shelf life when stored in dry conditions.

## **6 YEAR GUARANTEE**

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# AquaDrain T<sup>+</sup>

**Combined load-bearing, drainage, filter and protection system for direct adhesion method laying of outdoor floor coverings.**

## DESCRIPTION

High-performance, capillary passive surface drainage system for tile, natural stone and slab coverings in outdoor areas when combined with a recommended adhesive from BAL. For full application advice and technical drawings please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE .

## Product Properties and Benefits

- A complete support, drainage and protection systems for external areas.
- Rapidly drains off seepage water and provides 3-dimensional water management. .
- Prevents the development of puddles and surface pooling by diverting the water into the drainage mat. Inhibits rising trapped moisture thereby avoiding discolouration of the surface of moisture-sensitive materials including natural stone, ceramic and concrete coverings. Also helps reduce risk of efflorescence. Guarantees the fastest possible drying out of the covering and the bedding layer. Ensures efficient drainage for barrier-free/low door connections in a system using AquaDrain® TM drain grates.
- Note: Can reduce footfall noise up to 33 dB when used as part of a total construction, test report BL 01-07515; Construction Acoustics Laboratory, University of Rhein-Main dated 05.04.2015

## Suitable Coverings:

- Natural stone tiles min 400 mm x 400 mm x 30mm
- Concrete slabs min 400 mm x 400 mm x 30 mm
- Ceramic tiles (extruded) min 400 mm x 400 mm x 35mm
- Porcelain tiles min 600 mm x 600 mm x 20mm
- Natural stone/concrete paving min. 200 mm x 100 mm x 60 mm.

## PRODUCT INFORMATION

**Composition:** AquaDrain® T+ drainage rolls consist of non-rotting plastic (Polypropylene) with channel-like profiles lengthwise and across, on the upper and lower side, pressure resistant, in 8mm and 16mm thickness.

**Colour:** Green

**Pack sizes:** 10 m rolls

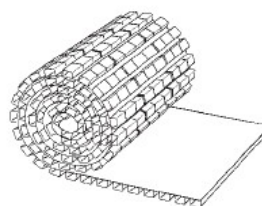
**Sheet Width:** 1m plus 50mm overlapping

**Sheet Thickness:** 8mm and 16 mm

**Roll Weight:** approx. 9kg.

## Additional Information:

- Static pressure tolerance: 2,000kg/m<sup>2</sup>
- Contact area: approx. 66%
- Height of structure: depending on type of construction
- Store sheets on the lengthwise side, as the fleece projects by 50 mm. Rolls must NOT be stored on this edge. Do not store in direct sunlight. Protect against pressure and moisture.
- Drainage performance: see page 2.



## DRAINAGE PERFORMANCE

According to DIN EN ISO 12958 "Determination of water flow capacity within the plane" (Item 5.1a), 08/2010. SKZ-TeConA GmbH Würzburg test reports 114506/15 T+ 8 mm; 113226/14-II T+ 16 mm

## TEMPERATURE RESISTANCE

-30°C to 70°C (up to 80°C brief periods) **N.B** Tiling should not be carried below 5°C

### Gradient Fall Drainage Performance (meters per second)

#### AquaDrain® T+ 8 mm

i = 1,0 = 100 %\* 5,04 l/(m x s)

i = 0,1 = 10 %\* 1,51 l/(m x s)

i = 0,015 = 1,5 % 0,53 l/(m x s)

#### AquaDrain® T+ 16 mm

i = 1,0 = 100 %\* 10,33 l/(m x s)

i = 0,1 = 10 %\* 3,16 l/(m x s)

i = 0,015 = 1,5 % 1,17 l/(m x s)

## INSTALLATION INSTRUCTIONS

NOTE: For further information on installation please refer to Part B Installation Guide or contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

### Substrates/Concrete

Falls should be between 1 -2 % and equivalent to (SR1)

#### Surface regularity (SR):

Surface Regularity is defined as the deviation in height of the surface of a flooring layer over short distances in a local area. In simpler terms, it is the 'flatness' or 'measure of unevenness' of the surface.

Substrates must be load-bearing, firm and not resilient or compressible.

· i.e. any thermal insulation needs to have a pressure resistance of > 200 kPa.

· Should be in a fall of  $\geq 1.0$  % unless the top covering requires a greater fall.

· Falls of 2.5% or greater may require slip-proofing to be measured and set up on site, in particular in free or exposed edge areas.

Falls of 1% or less:

Falls of less than 1 % can cause the following:

- Higher water loading
- More risk of encouraging water to the building.
- Pooling or ponding of water
- Water staining of porous covering materials.
- Increased risk of ice formation.
- Void formation.

### Installation:

#### Selection of appropriate mat thickness: 8mm or 16mm

1. AquaDrain® T+ rolls are laid with the fleece side upwards.
2. The overlapping laminated fleece covers the joints between the lengths, making sure that no material (chippings/ gravel levelling layer, dirt particles) can enter the drainage channels.
3. Other joint areas overlapping and the front ends of the mat joints are covered and adhered with self-adhesive AquaDrain® SK joint covering tape.
4. To join all adjacent and rising construction elements, AquaDrain® T+ is to be laid stress-free with an 8 mm-10mm expansion joint. To ensure freedom of movement of the subsequent covering structure and to protect against the entry of matter behind/underneath the surface drainage, the AquaDrain® RD edge insulation strip with self-adhesive foot is to be applied to AquaDrain® T+ .The perforation of the self-adhesive foot ensures the transfer of seepage water into the surface drainage.

While the work is being carried out, the drainage system is to be protected with walk boards in the areas of transport pathways.



**Always check the suitability of the covering with the manufacturer.**

For seals on balconies/patios/roof terraces according to BS 5385 Part 3 – 5.5 Separating Layers and G.8 Separating Layer (unbonded method), e. g. made of PE membrane with a minimum thickness of 0.125mm should be used for most conditions.

**Laying of tiles/stone/slabs/paving coverings**

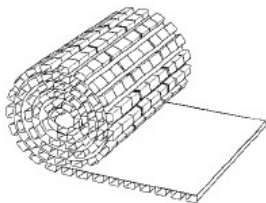

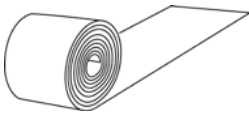
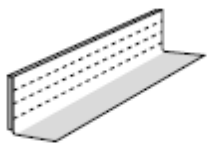
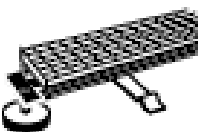






Please refer to Part B Installation Guide or contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

**Open edge areas with drip edges**

**1. Surface seal not yet present:**

- a. Exposed covering edges should be bordered with the ProFin® DP drain and drip profile. The cross-section of the covering construction can be masked by the ProFin® BL push-in facing plate.
- b. For easier assembly, use a suitable Multi-Purpose Construction Adhesive and Sealant to fix the drain end profile. The fixing strips should be arranged with spacing of approx. 300mm between strips, running in the direction of the substrate fall.
- c. The system profiles must each be bolted through the outer most punched hole. Other bolts should be placed at approx. 500mm intervals.
- d. Edging end profiles are to be installed in the joint area (ProFin® profiles every 3 m) with a spacing of 1 mm– 2mm between. The gap is covered with ProFin® V profile connectors. For field limit joints, this edging profile is to be laid with an expansion joint of approx. 8mm –10mm.

## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain T+ drainage mat</b> 	<b>DiProTec AB-KV sealing tape</b> 	<b>AquaDrain SK joint tape</b> 	<b>AquaDrain Edge insulation tape</b> 
<b>AquaDrain TM drain grate</b> 	<b>ProRin BR guttering</b> 	<b>ProFin DP edge profile and BL facing plate</b> 	<b>ProFin V22/55 drip/drain edge profile</b> 
<b>BAL Stone and Tile PTB</b> 	<b>MorTec SOFT silicone sealant</b> 	<b>BAL Tank-it</b> 	

**N.B** Please consult BAL Technical Advisory and Specification Service (TAS) or a member of the BAL specification support team for a full and comprehensive product specification to meet your project requirements.

## TECHNICAL ADVISORY SERVICE

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## SHELF LIFE

**No shelf life when stored under correct conditions.s.**

Protect from frost, damp and sunlight.

## 6 YEAR GUARANTEE

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# AquaDrain<sup>®</sup> TM

**Height adjustable, ultra-flat drain grate for thin covering external tiling from 31mm.**

## DESCRIPTION

The AquaDrain<sup>®</sup> TM drain grate, with its extremely shallow frame, is suitable for thin-layer, tile and natural stone floor coverings using direct or point adhesion fixing method on the AquaDrain<sup>®</sup> T+ surface drainage matting. For full application advice, please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Product Properties and Benefits

- Use in front of doors, floor level windows components or for in line drainage.
- Allows safe drainage of outdoor surfaces at door thresholds. Only 31 mm construction height.
- Simply cut to length.
- Can be used with AquaDrain<sup>®</sup> T+ and AquaDrain<sup>®</sup> EK drainage matting.
- Integral dirt trap protects against fouling, guaranteeing permanent drainage performance.
- Easy height adjustment thanks to six continuously adjustable screw feet.
- Maximum drainage performance combined with AquaDrain<sup>®</sup> T+ and AquaDrain<sup>®</sup> EK systems for external tiling.
- Ideal for use in wheelchair accessible applications.

## PRODUCT INFORMATION

**Composition:** Steel galvanised or stainless steel.

**Dimensions:** Width 100mm x Length 1000mm, including 6 screw feet and 3 load distribution plates

**Length:** can be continuously adjusted from 1000 mm to 770mm, 560mm to 410mm, 190mm to 110mm.

**Height adjustment:**  
Height adjustable 31-46 mm

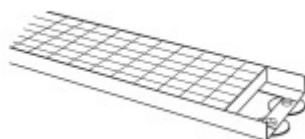
**Minimum installation height:** 30mm is screw foot can be cut on site.

Note: For marine installations stainless steel grade 316 is recommended.

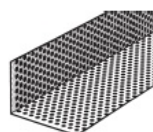
**AquaDrain<sup>®</sup> Lochwinkel perforated screed angle**  
**Composition – high dipped powder coated steel**

**Dimensions - 30/40mm x 1.000mm (powder coated steel).**

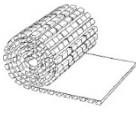

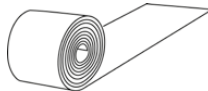
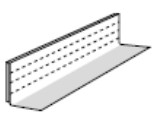
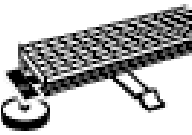


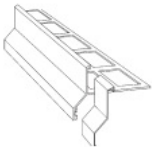



AquaDrain<sup>®</sup> TM



AquaDrain<sup>®</sup> Lochwinkel



## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain® T+ drainage mat</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM drain grate</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 	<b>ProFin® V22/55 drip/drain edge profile</b> 
<b>BAL Stone and Tile PTB</b> 	<b>MorTec® SOFT silicone sealant</b> 	<b>BAL Tank-it</b> 	

**N.B** Please consult BAL Technical Advisory and Specification Service (TAS) or a member of the BAL specification support team for a full and comprehensive product specification to meet your project requirements

### TECHNICAL ADVISORY SERVICE

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

### SHELF LIFE

**No shelf life when stored under normal conditions.** Protect from frost, damp and sunlight.

### 6 YEAR GUARANTEE

Since 1990, GUTJAHR has been the only manufacturer to offer extended warranties for its drainage systems, e.g. 6 years for balconies, patios and outdoor steps with AquaDrain® drainage.

No liability can be accepted for any loss or damage arising from incorrect use of products or poor workmanship, over which BAL has no control. *Contact BAL Marketing Department for full details.*

### CONDITIONS OF SALE

Sold subject to the Company's Conditions of Sale. *Available on request. For sales and technical queries, contact:*

### BUILDING ADHESIVES LTD

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB,  
England [www.bal-adhesives.com](http://www.bal-adhesives.com)

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NOTE: BAL reserves the right to update instructions, technical data and other information at any time without notice.

# DiProtec<sup>®</sup> AB-KV

## Tear-resistant butyl sealing tape

### DESCRIPTION

Self-adhesive sealing tape with a butyl underside and half plastic, half fleece upper side for connection of transitions of primary waterproofing and ProFin<sup>®</sup> edge profiles. For full application advice and technical drawings please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE .

### Product Properties and Benefits

- Easy to apply, pre-fabricated sealing tape for Gutjahr external tiling systems.
- No priming needed.
- Used for sealing transitions between the primary waterproofing and profiles such as the ProFin<sup>®</sup> DP11/DP21/DP30 and ProFin<sup>®</sup> V22 when used with AquaDrain<sup>®</sup> T+

### PRODUCT INFORMATION

**Composition:** Underside butyl (self-adhesive). Top 75 mm plastic/ 75mm fleece.

**Colour:** Grey.

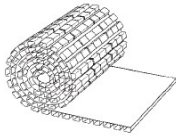
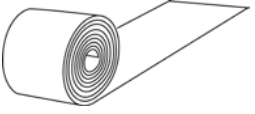
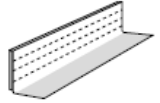

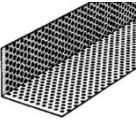
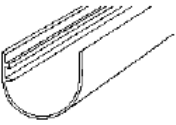
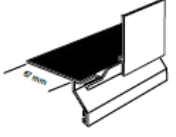









**Width** 150 mm.

**Pack size:** 20 m roll.

DiProtec<sup>®</sup> AB-KV



## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain EK or T+ drainage mat</b> 	<b>AquaDrain SK joint tape</b> 	<b>AquaDrain Edge insulation tape</b> 	<b>AquaDrain TM or FLEX drain grate</b> 
<b>AquaDrain Lochwinkel screed angle</b> 	<b>ProRin BR guttering</b> 	<b>ProFin DP edge profile and BL facing plate</b> 	<b>ProFin V22/55 drip/drain edge profile</b> 
<b>BAL Tank-it</b> 	<b>MorTec DRAIN</b> 	<b>BAL Quickset Cement</b> 	<b>BAL Rapidset Flexible Fibre</b> 
<b>BAL Stone and Tile PTB</b> 	<b>BAL Micromax2 Grout</b> 	<b>BAL Micromax Sealant</b> 	<b>MorTec SOFT silicone sealant</b> 

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### SHELF LIFE

Minimum 24 months under normal dry conditions. Protect from frost, damp and sunlight.

### 6 YEAR GUARANTEE

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# MorTec DRAIN

## Two-part thin-layer epoxy resin drainage mortar

### DESCRIPTION

MorTec® DRAIN is a thin-layer, two-part epoxy resin drainage mortar for use in combination with AquaDrain® EK surface drainage system for solid bed fixing of natural stone and ceramic coverings on balconies, patios, terraces and roof terraces. For full application advice, please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE .

### Product Properties and Benefits

- MorTec® DRAIN reduces the required height construction by at least 25mm compared to cement-based drainage mortar systems. This makes it ideal for renovation work or if necessary construction height it lacking.
- Assists rapid-drainage and speeds of drying of natural stone avoiding water or frost damage.
- Lime-free meaning no efflorescence.
- For lightweight constructions and low door height connections less than 50mm with AquaDrain® EK 8mm sheets and AquaDrain® TM and AquaDrain® FLEX drain grates.

### Minimum thickness of covering:

- Natural Stone: min 20mm
- For larger format ceramics and porcelain: min 10mm.

### PRODUCT INFORMATION

**Composition:** MorTec® DRAIN-EP epoxy resin binder and MorTec® DRAIN-DK 2-3mm kiln-dried and pre-mixed special filter quartz aggregate according to EN 12904.

**Pack sizes:** 1kg and 2kg knead bags with separator 25kg bag.

**Substrate Requirements:** Pressure-resistant; for thermal insulation: EPS 035 DAA dh/XPS), min. 200 kPa with roof terrace insulation. Only 120 kPa with a 30mm screed.

**Suitable substrates:** Ground-contact patios, roof terraces, loggias, unsupported cantilevered balconies, outdoor steps. Old ceramic tile coverings / old coatings.

**Fall:** min 1%

**Seal:** All types of sealing can be used, except for bitumen welded sheets. BAL TANK-IT is suitable is not used on roof terrace.

**Height of structure when laid on AquaDrain® EK 8mm sheets:**

From approx. 43mm (tiles), 52mm (natural stone), for larger formats from 60mm (natural stone).

**System Profiles:** ProFin® DP11 with facing plate BL24 or DP30 as the finish. Alternatively ProFin® V22 when roofing membrane is existent

**System Drain Grate:** AquaDrain® TM.

**Rainproof after:** 3 hours.

**Drying time:** 12 hours.

**Working time:** 40 minutes, lower or higher temperature may lead to longer/shorter times.

**Full loading capacity:** 7 days.

**Working temperature:** min 5°C to max 30°C. Relative humidity MUST NOT exceed 80%.

**Mix:** 1kg part epoxy resin binder to 25kg parts quartz aggregate





## FUNCTION

When installed on the 8mm AquaDrain® EK (sheets) capillary passive drainage systems, drainage performance is significantly increased.

The full system - MorTec® drain on AquaDrain® EK 8mm plate with AquaDrain® TM drain grate -creates a low construction height to connect with low door connections and conforming to DIN 18195 and flat roof directive.

The MorTec® drain system on AquaDrain® drainage meets the demands / recommendations of the German tile and natural stone federation (FFN) "Exterior coverings" and "external stairs" and the German Natural Stone Association (DNL) "1.4 floor-coverings, exterior".

Weight savings of the whole system amounts to over 60% over conventional cementitious screeds.

### Substrates

- Should have a gradient > 1%.
- The minimum slope information may differ with top coats and / or when use requires a higher gradient.
- Must be solid, firm and not resilient or compressible.
- For Slope situations <1.00%. See the BAL TECHNICAL DATA SHEET on AquaDrain® EK.
- For height differences, sealing height of >2mm are not permitted.
- Bitumen is not suitable as a base due to overlapping joints and the low weight per unit area of MorTec® drain system. Please contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for further information.
- On waterproofing of balconies / terraces / roof terraces, seals should conform to DIN 18 195 Part 10, e.g. of PE membrane with thickness > 0.2 mm or thermal fleece <150 g / m² are required.
- Insulation, on which the drain system for MorTec® is used, should generally have a minimum compressive strength of 120 k/Pa exhibit (see table).

## APPLICATION

### a) Passive capillary surface drainage with AquaDrain® EK 8mm sheets.

1. AquaDrain® EK sheets are laid on suitable substrates with the mesh side up, preferably with the drainage channels pointing in the direction of the main fall.
2. The overlapping mesh covers the joints between the lengths, ensuring that none of the single-grain mortar can enter the drainage channels.

3. Other joint areas are covered and adhered with the self-adhesive AquaDrain® SK joint tape.

4. To join all adjacent construction elements, AquaDrain® EK is to be laid with a 10 mm expansion joint. To ensure freedom of movement of the subsequent covering structure and to protect against the entry of mortar behind/underneath the surface drainage, the AquaDrain® Edge Insulation edge insulation strip with self-adhesive foot is to be applied to AquaDrain® EK. The perforation of the self-adhesive foot ensures permeability, so that seepage water is transferred to the surface drainage.

Further instructions:

While work is being carried out, the drainage mats are to be protected in the areas of transport pathways etc. with planks/walk boards.

For more information please refer to the BAL TECHNICAL DATA SHEET on AquaDrain® EK TDS and Part B – Installation Guide.

### b) Open edge areas

Should be bordered with the ProFin® drain gravel stops or respective ProFin® DP drain edge profiles. The 2 in 1 edge profile consists of:

1. The base profile, fixed to the substrate and pegged.
2. The push-on facing panels, height variable dependent on surface finishes and mounting heights. At low heights, the ProFin® DP11 base profile plus the BL 24 facing plate is suitable.

### Required thickness of MorTec® DRAIN screed function in according with the type and design of thermal barriers:

Compressive strength of thermal insulation	Layer thickness of MorTec® DRAIN screed		Type of thermal insulation	
	25mm	30mm	Loose	Bonded
120 k/Pa		X		X
200 k/Pa	X			X

### c) Drain Mortar

- The resin components (a) and hardener (b) are present in the mix bag with screw cap. Remove the separation rod and mix the two components vigorously by kneading the bag for 2-3 minutes. Mix until a uniform colour is obtained. Puddles on the sealing layer should not exceed a depth of 4mm.
- Add the premixed epoxy filler to the MorTec® DRAIN aggregate in a mixer and mix for 1-2 mins. Small quantities of up to 25kg can also be mixed in a bucket with a paddle mixer. The finished mixture can now be poured onto the prepared surface for the creation of the screed.
- Use a jig to level the screed right to the top of the ProFin® BL push-on panels

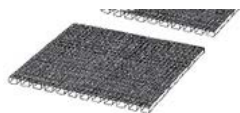

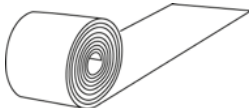
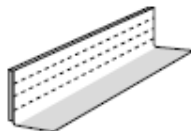
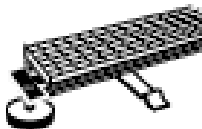


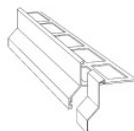






Always drain as much of the mortar mix as you can in the allocated installation time.

- Ensure that expansion joints in the floor surface and rising components are congruent to the upper layer movement joints. Field expansion joints should be installed every 3m. Thicker MorTec® drain layers >30mm, as well as dark and large-format coverings require shorter distances between joints. A safe movement joint between the drainage mat and including the finished coating is also achieved with AquaDrain® Edge insulation strip. Sloped screeds of 25-50 mm are also acceptable, such as ramps at up to 6% gradient (from a 3% gradient, a slip guard should be necessary).

**d) (Ceramic, natural cast stone) Laying of floor coverings.**

- Fixing on the floor covering can begin immediately after the screed has hardened. Use a recommended BAL rapid-setting tile adhesive such as BAL RAPIDSET FLEXIBLE FIBRE, BAL RAPIDSET FLEXIBLE or BAL STONE AND TILE PTB. Tiles should be back buttered.
- For best possible water drainage, ensure that the joints are fully free from tile adhesive.

**OPTIONAL SYSTEM COMPONENTS**

<b>AquaDrain® EK drainage sheet (8mm)</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM drain grates</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 	<b>ProFin® V22/55 drip/drain edge profile</b> 
<b>BAL Tank-it</b> 	<b>MorTec® DRAIN</b> 	<b>BAL Rapidset Flexible Fibre</b> 	<b>BAL Micromax2 Grout</b> 
<b>BAL Micromax Sealant</b> 	<b>MorTec® SOFT silicone sealant</b> 	<b>N.B</b> Please consult BAL Technical Advisory and Specification Service (TAS) or a member of the BAL specification support team for a full and comprehensive product specification to meet your project requirements.	

**HEALTH & SAFETY INFORMATION / GOOD PRACTICE ADVICE**

For detailed information and safety guidance, please refer to Product Material Safety Data Sheet [MSDS].

**TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

**SHELF LIFE**

12 months under normal dry conditions. Protect from frost and damp.

**6 YEAR GUARANTEE**

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# MorTec® SOFT

**Neutral curing and solvent-free silicone sealant for external & internal tiling**

## DESCRIPTION

MorTec® SOFT is a special joint filler with a cement-like appearance for elastic joints in large-format outdoor coverings. Neutral curing, and solvent-free, it is suitable for use with natural stone, ceramics and porcelain. For full application advice, please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Product Properties and Benefits

- Solvent-free, neutral curing, fungicide containing silicone sealant.
- Grout-like appearance
- Absorbs movement from thermal changes and reduces tension.
- Can be used for tile joints, movement joints and connection joints.
- Suitable for ceramic, natural stone and porcelain coverings.
- Can be used internally and externally

## PRODUCT INFORMATION

**Composition:** Ready to use, solvent-free silicone sealant.

**Colours:** Grey, Anthracite, Dark Brown.

**Type/Classification:**

**Pack sizes:** 310 ml cartridge

**Set in:** 24 hours (per 3 mm thickness at 23 °C).

**When fully cured:** Wide service temperature range (-20°C to +150°C). Unaffected by weather, UV radiation or water immersion.

**Permissible total deformation:** 20 %

## MIX/USAGE DATA

Application	Cure Time at 23°C **
Caulking Gun	24 hours

\*\* Drying time will be extended in colder temperatures, when applied on to low porosity surfaces.

## COVERAGE

Bead Size	Coverage ^^
5 x 5 mm	4 m/100 ml

^^Coverage may vary dependent on size of bead.

## TEMPERATURE RESISTANCE\*\*\*

-20°C to 150°C

\*\*\* Cured grout.



## **SURFACE PREPARATION**

### **General**

For general information on construction of movement joints in external tiling, reference should be made to BS 5385: parts 3

Before sealing, ensure that:

- The surfaces are clean, dry, and free from dust, grease and contaminants that affect adhesion.
- Ensure that joints are completely free from adhesive residue and other materials from the laying process such as drainage mortar.
- It may be useful to remove grease from adjacent Gutjahr system profiles.
- To prevent the build-up of residue on adjacent tiles/slabs and rough edges, covering the surface with a suitable adhesive tape such as masking tape.

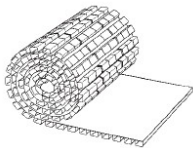

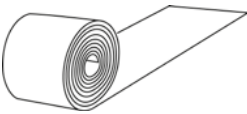
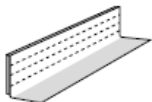

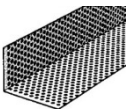











## **APPLICATION**

### **Sealant procedure**

**Recommended maximum joint width : 5 mm, 3 mm when using AquaDrain® T+ Thin Drainage Assembly. For Movement joints or most applications, use in 5 x 5 mm cross section.**

1. Cut off tip of cartridge, ensuring there is enough screw thread to attach the nozzle.
2. The cartridge nozzle should be cut to the required width and angle.
3. Place cartridge in caulking gun and apply steady bead of MorTec® Soft to required area.
4. The surface of the sealant should be tooled to a slightly concave finish before surface skin forms (approx. 5 mins at 25 degrees Celsius)
5. Smooth silicone with wet silicone tool/spatula or similar (NOTE: dilute soap or detergent solution may be used as tooling lubricants, but excessive use should be avoided as this may affect adhesion at the joint edges and cause staining on moisture sensitive stone).
6. Tools should be cleaned immediately after use with a degreasing solvent.
7. Masking tape must be removed immediately after tooling, before a skin forms on the surface of the sealant, to achieve a neat edge.
8. Allow to cure (approx. 24 hours per 3 mm thickness).

## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain® EK or T+ drainage mat</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM or FLEX drain grate</b> 	<b>AquaDrain® Lochwinkel screed angle</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 
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<b>MorTec® SOFT silicone sealant</b> 			

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## **HEALTH & SAFETY INFORMATION / GOOD PRACTICE**

### **ADVICE**

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# ProFin<sup>®</sup> BL24/49

**Push-on facing plates in 24 mm and 49 mm and associated connectors for modular Gutjahr balcony systems.**

## DESCRIPTION

Aluminium powder-coated, push-on facing plate for ProFin<sup>®</sup>DP drainage profiles which form part of the Gutjahr external tiling system from BAL. For full installation advice and technical assistance the please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Product Properties and Benefits

- Push-on facing plate in combination with ProFin<sup>®</sup> DP11/DP21/DP30 base profile for covering constructions up to 79mm high.
- Seepage water is concealed and drained behind the facing plate.
- Separating the facing plate from the base profile reduces the risk of damage from shear stress on the seal.
- Can be used with all Gutjahr surface drainage systems and DiProtec<sup>®</sup> sealing tape technology.

## PRODUCT INFORMATION

**Composition:** ProFin<sup>®</sup> BL24/49 profile, Corner 90° and connectors are constructed from power coated aluminium.

**Colour:** Alumetallic. Other colours available on request.

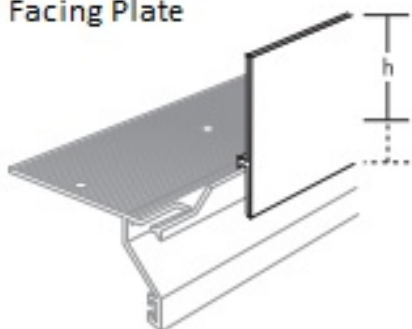
**Size:** 1 length = 3 m. 1 corner unit = 185 mm x 185 mm

### Additional Information:

- Height of structure: depending on type of construction and covering.

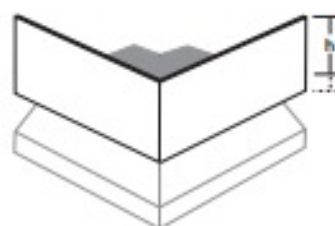
**ProFin<sup>®</sup> BL 49**

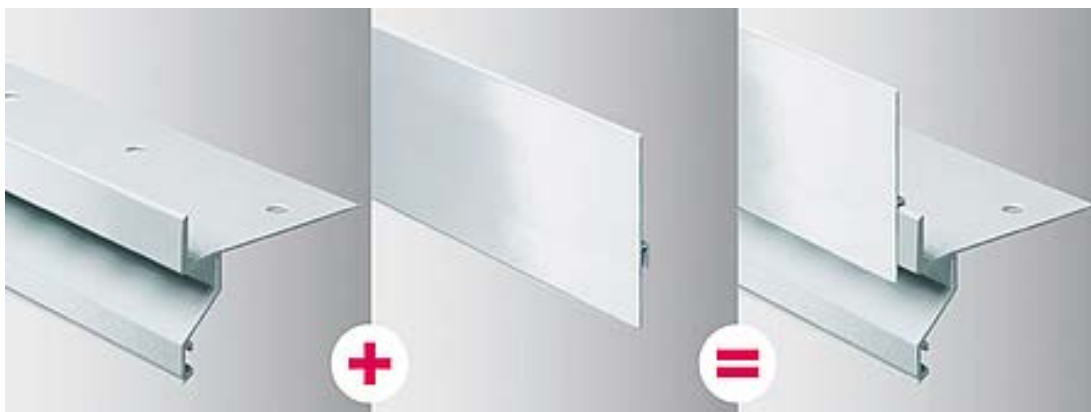
Facing Plate



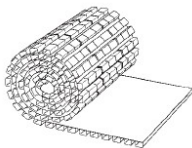

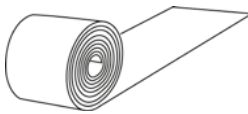
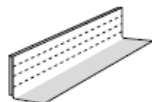

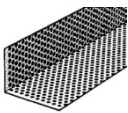
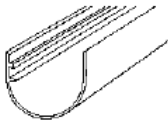









**ProFin<sup>®</sup> BL 49**

Corner 90°





**OPTIONAL SYSTEM COMPONENTS**

<b>AquaDrain® EK or T+ drainage mat</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM or FLEX drain grate</b> 	<b>AquaDrain® Lochwinkel screed angle</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 
<b>BAL Tank-it</b> 	<b>MorTec® DRAIN</b> 	<b>BAL Quickset Cement</b> 	<b>BAL Rapidset Flexible Fibre</b> 
<b>BAL Stone and Tile PTB</b> 	<b>BAL Micromax2 Grout</b> 	<b>BAL Micromax Sealant</b> 	<b>MorTec® SOFT silicone sealant</b> 

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## **TECHNICAL ADVISORY SERVICE**

For free expert guidance on use of this product, or any aspect of tiling, contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE on Tel: 01782 591120 or 0845 600 1 222 or Fax: 01782 591121.

## **SHELF LIFE**

**No shelf life when stored under normal conditions..**

Protect from frost, damp and sunlight.

## **QUALITY AND ENVIRONMENTAL STANDARDS**

Manufacturing quality assurance standards conform to BS EN ISO 9001. Satisfies the environmental management requirements and operational scope of ISO 14001.

## **6 YEAR GUARANTEE**

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## **CONDITIONS OF SALE**

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Ballycoolin, Dublin 15, Ireland  
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# ProFin<sup>®</sup> DP11/21/30

**11mm, 21mm and 30mm flexible drainage profile and 90 ° corner profile for balconies, patios and terraces.**

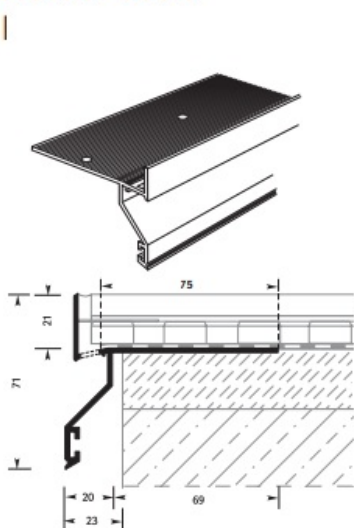
## DESCRIPTION

High-performance powder-coated aluminium drip/drain end profile and corner unit for use with Gutjahr external tiling systems from BAL. Can be combined with ProFin<sup>®</sup> BL push-on facing plates for build-up up to 79 mm high. For full installation advice and technical assistance then please refer to Part A Technical Design Guides or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE .

## Product Properties and Benefits

- Combined drainage and separating profile.
- New generation of edge profile with non-punched leg for safe, simple waterproof attachment of seals in combination with the DiProtec<sup>®</sup> KV-AB sealing tape.
- Drainage holes for shedding surface /seepage water.
- With supports for hanging ProRin<sup>®</sup> balcony gutters.
- Use in combination with ProFin<sup>®</sup> BL push-on face plates for added height up to 79 mm.
- Use as edging with combined AquaDrain<sup>®</sup> T+ or AquaDrain<sup>®</sup> EK drainage mats systems and accessories.

### ProFin<sup>®</sup> DP21



## PRODUCT INFORMATION

**Composition:** ProFin<sup>®</sup> DP11/DP21/DP30 profiles and Corner 90° are constructed from power coated aluminium.

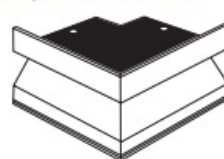
**Colour:** Alumetallic. Other colours available on request.

**Size:** Length is 3 m. 1 corner unit = 185 mm x 185 mm

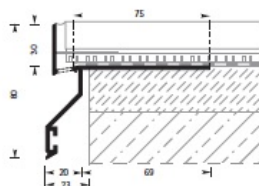
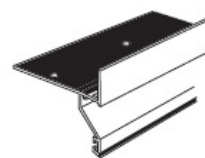
### Additional Information:

- Combine products to produce the desired height See page 2 graphic.)

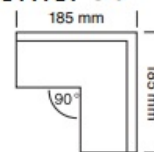
### ProFin<sup>®</sup> DP21

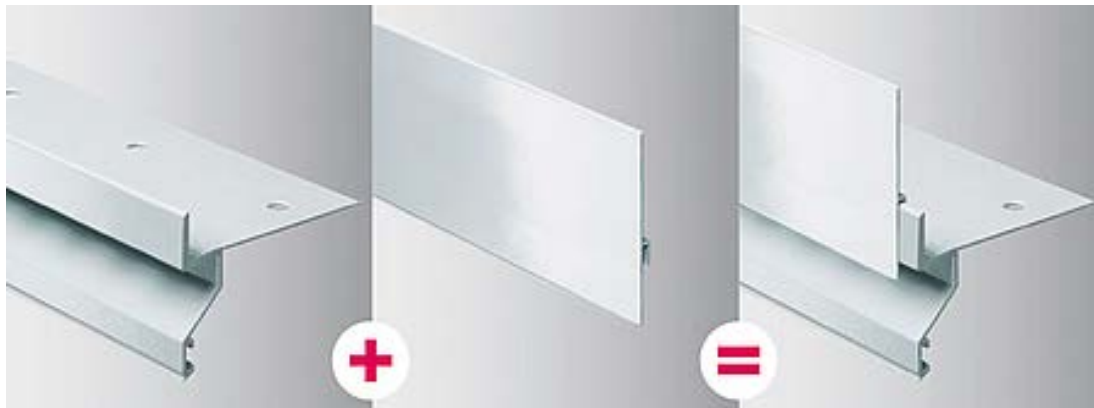


### ProFin<sup>®</sup> DP30

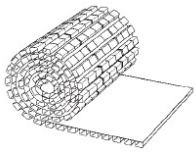

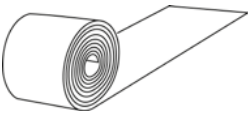
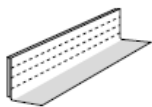

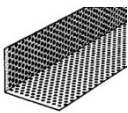
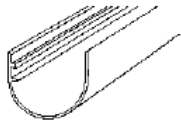
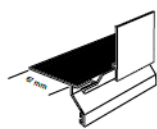










### Corner 90°





## OPTIONAL SYSTEM COMPONENTS

<b>AquaDrain® EK or T+ drainage mat</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM or FLEX drain grate</b> 	<b>AquaDrain® Lochwinkel screed angle</b> 	<b>ProRin® BR guttering</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 
<b>BAL Tank-it</b> 	<b>MorTec® DRAIN</b> 	<b>BAL Quickset Cement</b> 	<b>BAL Rapidset Flexible Fibre</b> 
<b>BAL Stone and Tile PTB</b> 	<b>BAL Micromax2 Grout</b> 	<b>BAL Micromax Sealant</b> 	<b>MorTec® SOFT silicone sealant</b> 

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## **TECHNICAL ADVISORY SERVICE**

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## **SHELF LIFE**

**No shelf life when stored under normal conditions..**

Protect from frost, damp and sunlight.

## **6 YEAR GUARANTEE**

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# ProFin<sup>®</sup> V22/55

**Drainage profiles, corner units and connectors for AquaDrain<sup>®</sup> surface drainage systems.**

## DESCRIPTION

Aluminium powder-coated drip/drain end profile and corner unit for use with Gutjahr external tiling systems from BAL. Available in heights of 22 mm and 55 mm, these edge profiles cover the AquaDrain<sup>®</sup> assembly to create a clean, neat and functional finish to the balcony surround. The projecting profile directs surface water away and keeps drainage channels free. For full installation advice and technical drawings please refer to Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE.

## Product Properties and Benefits

- Surface and seepage water is drained away without leaving dirt trails on balconies and facades and without danger of blocking.
- Decorative edging and screed support in one. Raised edge profile provides a facing for unglazed edge of tiles.
- Protects screed from water damage.
- Rapid and simple installation. Profiles can be linked with profile connectors supplied.
- Prefabricated with seal-tight welded corners for easy assembly.
- Use ProFin<sup>®</sup> V22 in combination with direct point adhesion fixing method on AquaDrain<sup>®</sup> T+ surface drainage mats for covering thickness from 22 mm.
- Use ProFin<sup>®</sup> V55 in combination with AquaDrain<sup>®</sup> EK drainage roll or sheets.
- Ideal to be used for Roof Terraces with existing membranes already present on-site.
- For upstand heights of 22 mm or 55 mm.

## PRODUCT INFORMATION

**Composition:** ProFin<sup>®</sup> V22/55 profiles and Corner 90° unites are constructed from power coated aluminium.

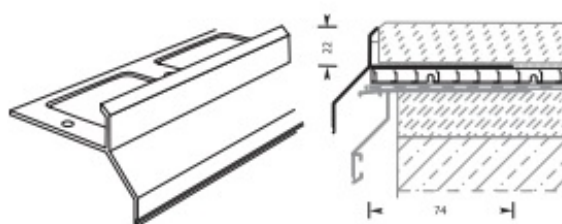
**Colour:** Alumetallic. Other colours available on request.

**Size:** 1 length = 3 m 1 corner unit = 185 mm x 185 mm

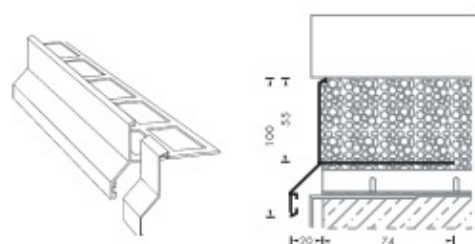
### Additional Information:

- Height of structure depends on the type of construction and covering. (See chart on page 2)

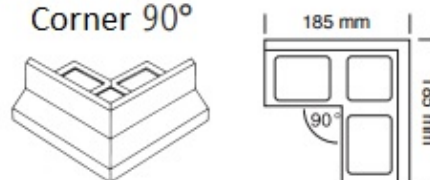
### ProFin<sup>®</sup> V22



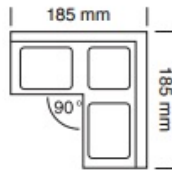
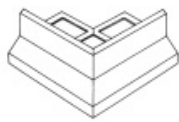
### ProFin<sup>®</sup> V55



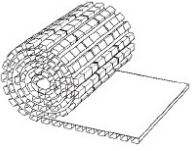

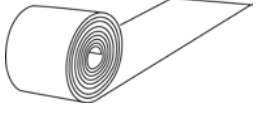
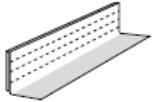

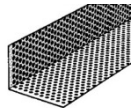











### ProFin<sup>®</sup> V55 Corner 90°



**ProFin® V22**  
Corner 90°



**OPTIONAL SYSTEM COMPONENTS**

<b>AquaDrain® EK or T+ drainage mat</b> 	<b>DiProTec® AB-KV sealing tape</b> 	<b>AquaDrain® SK joint tape</b> 	<b>AquaDrain® Edge insulation tape</b> 
<b>AquaDrain® TM or FLEX drain grate</b> 	<b>AquaDrain® Lochwinkel screed angle</b> 	<b>ProRin®BR guttering angle</b> 	<b>ProFin® DP edge profile and BL facing plate</b> 
<b>ProFin® V22/55 drip/drain edge profile</b> 	<b>BAL Tank-it</b> 	<b>MorTec® DRAIN</b> 	<b>BAL Quickset Cement</b> 
<b>BAL Rapidset Flexible Fibre</b> 	<b>BAL Stone and Tile PTB</b> 	<b>BAL Micromax2 Grout</b> 	<b>BAL Micromax Sealant</b> 
<b>MorTec® SOFT silicone sealant</b> 			

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## TECHNICAL ADVISORY SERVICE

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## SHELF LIFE

**No shelf life when stored under normal conditions** Protect from frost, damp and sunlight.

## 6 YEAR GUARANTEE

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# ProRin<sup>®</sup> BR

**Modular aluminium balcony gutter and associated connectors for Gutjahr external systems.**

## DESCRIPTION

Aluminium powder-coated balcony gutter system which forms part of the Gutjahr external tiling systems from BAL. For full installation advice and technical drawings please see our BAL Part A Technical Design Guide or contact the BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE .

## Product Properties and Benefits

- Easy to install by simply fitting into the profile support of the ProFin<sup>®</sup> DP profiles.
- No soldering, no gluing, no welding thanks to intelligent connection technology.
- Compact system for narrow railings.
- Can be combined with all Gutjahr profiles.
- Durable and damage-free, as the gutter connections serve as expansion joint zones.

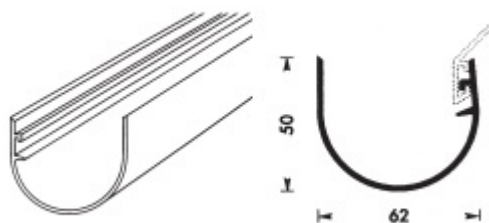
## PRODUCT INFORMATION

**Composition:** ProRin<sup>®</sup> BR and connectors are constructed from power coated aluminium.

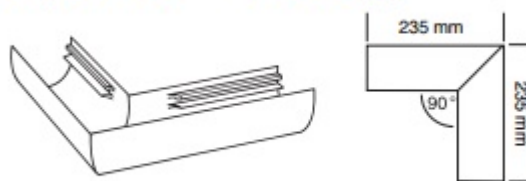
**Colour:** Alumentallic. Other colours available on request.

**Size:** 1 length = 3m. 1 corner unit = 235 mm x 235 mm  
Channel connector: 65 mm.

### ProRin<sup>®</sup> BR Balkonrinne



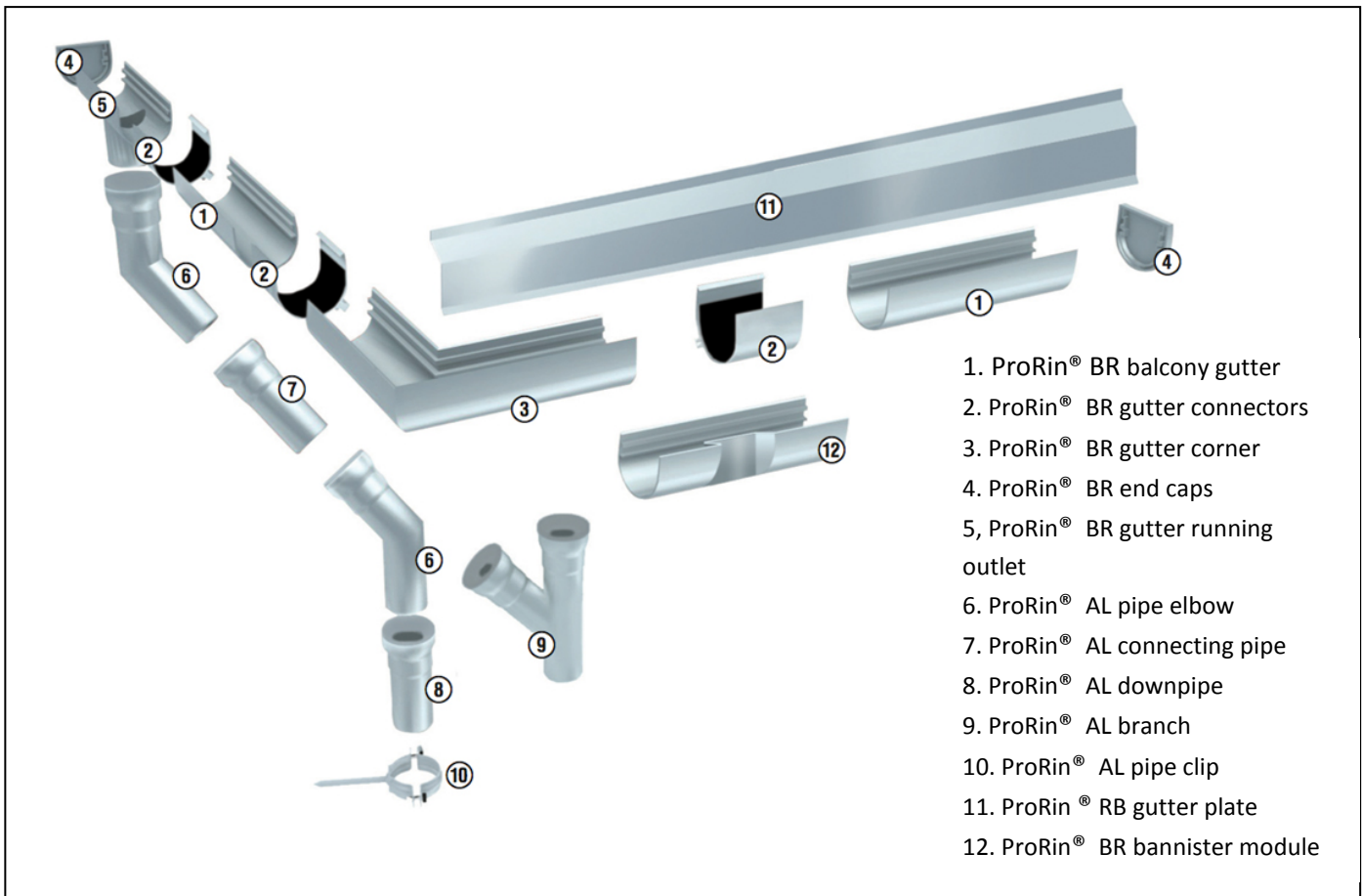
### ProRin<sup>®</sup> BR Corner 90°



### ProRin<sup>®</sup> BR Inside Corner 90°



## CONNECTING THE SYSTEM



## INSTALLATION INSTRUCTIONS

1. Start by clipping on the guttering corners to the terrace or balcony edge ProFin® DP profile. Guttering can be cut to size using a circular saw.

2. Connect the ProRin® guttering directly to the edge profile.

3. Secure using the small plastic spacers provided.

4. Leave approximately 5 mm-8 mm expansion joints between guttering parts.

5. Connect the individual elements of the guttering system using the clips provided.

6. Use a multi-purpose adhesive to secure the end caps and connecting plates in position.

7. To create a sloping gutter to the existing downpipe, firstly insert the metal connector into the gutter channel.

8. Now connect the outside corner trough (without downpipe) and lock on one side. Where the slope is to be incorporated, ensure the channel is not locked in place and is left hanging.

9. For the balcony side where the guttering will connect to a downpipe, preassembly the ProRin® gutter drainage element with the trough.

10. To create the pitch screw the metal bracket into place, and adjust to create the pitch you require.

11. Mount the gutter and trough onto the bracket and secure with the provided plastic spacers.

12. Then adjust the gradient using the gutter bracket.

13. Apply multi-purpose adhesive strips onto the edge profile every 10-15 mm.

14. Attach the ProRin® GB slope facing plate to the drain end profile and press into the adhesive strips. Cut to size if necessary before applying.

15. Connect any downpipes and/or elbows as required to complete drainage.

## **TECHNICAL ADVISORY SERVICE**

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