60 YEARS
Tiling Industry Leadership

sitework guidance

YOU + BAL: Working in partnership.

The essential guide for best practice tiling installation.

Range at April 23

YOU + BAL

bal-adhesives.com

@BALtiling

trust BAL to get it right

BAL is the UK's leading brand of adhesives, grouts and ancillary products for professional tile fixers. Whatever the tile material, whatever the tiling background, and whatever the function of the tiled environment, there is a BAL solution that you can completely trust for quality and lasting performance.

Helping you

This guide is your compact reference to best practice on site. As a handy reference to all BAL products, see our companion booklet **BAL PRODUCT SELECTION**

Unique 25-year guarantee

Used correctly, BAL products won't let you down. That fact is reassuringly underpinned by our unique 25-year product guarantee.

Unrivalled technical support with BAL

The level of support that we provide to every BAL user is unrivalled in the market.

Our experience spans almost six decades, meaning that we have the expertise to back you up with:

- Free training nationwide
- Free technical advice
- Free on-site consultancy
- Free specification service
- Free customer tools
- Free web based business tools

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general preparation

Basics

Before starting any tiling project, ensure that the background/base is:

- Sufficiently flat
- Clean and dry
- Free from any contamination
- Suitable for the intended service conditions
- Sufficiently strong, rigid and stable to support the tiling finish

BAL tips

making it flat – fast!

If you discover a plaster/brick/block WALL that is not sufficiently flat:

- *Make good with* **BAL Quickset Render**, **BAL Quickset Cement** *or* **BAL Board**.

If it's a concrete or screeded FLOOR that is uneven:

- *Make good/level with* **BAL Level Max**, **BAL Level Fast** *or* **BAL Acrybase**, **BAL Quickset Cement:Sand Screed** *or use* **BAL Board** *with a* **BAL Flexible Tile Adhesive**.

All these products provide rapid-setting solutions, minimising delays and allowing you to start fixing sooner.

For wet environments

- *In wet areas:* tank out with **BAL Tank-It / BAL Waterproof 1C**
- *In intermittently wet areas (e.g. domestic showers):* an epoxy grout may be used to provide additional protection.

BASES *only*

- Prevent ponding of water by creating adequate falls in the floor prior to tanking.
- **BAL Level Max** and **BAL Level Fast** is suitable for smoothing and levelling (for most internal floor areas including timber floors).

Existing movement joints *(see also page 20)*

- Fill movement joints with **BAL Silicone** or **BAL Micromax Sealant**.

NOTE: Part of the BAL range; MorTec Soft Sealant can be used.

- For perimeter movement joints with porcelain and suitable natural stone in external applications, use **MorTec Soft**, a neutral curing sealant.

tile types

Ceramic and other tile types vary according to material, production method, water absorption level, size, thickness and weight.

These differences – individually and in combination – can have a direct influence on choice of a suitable adhesive and on installation procedures.

Porous tiles may have water absorption levels in excess of 10%. At the other extreme, porcelain tiles typically absorb less than 0.5% of moisture.

Always check that the correct adhesive and grout are selected to suit the material of the tiles to be fixed.

In addition to information in the **BAL PRODUCT SELECTION GUIDE**, *packaging for all BAL adhesives and grouts clearly identifies for which tile types the product concerned is suitable.*

Tile material notes

The following should be noted about individual tile types:

Glazed ceramics: Can be used for walls and floors. Not generally suitable for exterior or heavy traffic floor areas.

Unglazed ceramics: Typically used in commercial/industrial situations – and more suited to wet areas. They are available with anti-slip profile. Stain and frost-resistant.

Mosaics: Typically supplied on sheets. The backing material and its adhesive should not occupy more than 25% of the area of each tessera. Usually glazed or glass. If unglazed, seal with a suitable sealant before installing. *Check with tile manufacturer or supplier.*

Porcelain tiles: Are normally dry pressed tiles with a very low water absorption level, so they need special adhesive formulation to ensure good adhesion/bonding.

BAL products suitable for use with porcelain tiles are identifiable via the **Porcelbond Plus** mark.

Natural stone: Some light-coloured stone tiles may be susceptible to staining. Exercise care when using coloured grouts *(see page 25)*. The wear capability of stone varies widely, depending on type – some hard, some softer. May require sealing. *Check with tile manufacturer or Stone supplier.*

Marble: If semi-translucent, use a rapid setting and drying *white* tile adhesive. Grey adhesive can show up as shadows in some cases.

Quarry tiles: Must have a rigid base. Not recommended for areas requiring complicated cuts.

Slate: These tiles can vary slightly in size and thickness.

Terrazzo: Highly durable, but can be slippery when wet. Should be dipped in water for a few seconds to get back wet before placement on the adhesive bed.

Terracotta: Can have a white powdery surface deposit. This is normal with certain types. Treat with an efflorescence remover, allow to dry, and apply a suitable impregnating sealer. Not frost resistant – so unsuitable for exterior use.

Glass: Some types are not suitable for use close to heat sources or in wet areas. *Check with tile manufacturer.*

Resin agglomerate: Manufactured from stone aggregates and resin. These tiles have a higher coefficient of thermal expansion and varying degrees of moisture sensitivity. *Check with the tile manufacturer or supplier.*

PREPARATION – Factors and Guidance

wall tiling weights

Tiling wall substrates	Maximum weight* of tiling per m^2
Gypsum plaster	20kg/m^2
Gypsum plasterboard direct (i.e. without a plaster skim)	32kg/m^2
BAL Board**	Up to 100kg/m^2 depending on how the board is fixed/ thickness of board
Lightweight tile-backer boards**	Up to 60kg/m^2 depending on type/thickness of board
Glass reinforced cement sheets**	Up to 50kg/m^2 depending on type/thickness of board
Gypsum fibre boards**	Approx. 35 - 40kg/m^2
BAL Waterproof 1C	Depending on the weight restriction of the backerboard, wall tiling substrate

Typical weight equivalents

20kg/m^2: ceramic tiles up to 8mm thick (max.) or natural stone tiles up to 7mm thick (max.).

32kg/m^2: ceramic tiles up to 12.5mm thick (max.) or natural stone tiles up to 10mm thick (max.).

100kg/m^2: check weight limit of the background before fixing BAL BOARD (12mm thickness).

For other weight limits: check limit against declared tile weight per m^2 PLUS 2-5kg/m^2 allowance for adhesive and grout.

* Tiles PLUS adhesive & grout

** Seek further advice/guidance for weight of tiling and correct installation from the board manufacturer

PREPARATION – Priming

primer guide

Before tiling, certain wall and floor backgrounds/substrates require priming.

This may be to:

– reduce porosity of backgrounds/ bases, and so prevent formation of air bubbles.

– isolate surfaces containing calcium sulphate from cement-based adhesives, and so minimise risk of chemical reaction.

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

Allow each coat of primer to dry between coats (second coat applied at 90º to the first).

– prepare surface for waterproofing/ tanking, or for application of levelling compound.

If using on floors, do NOT allow to form puddles.

BAL Prime APD – TWO coats neat

BAL Bond SBR – TWO coats

(diluted 1:2 with clean water by volume)

BAL All-in-One Plus – TWO coats

(diluted 1:2 with clean water by volume)

- Gypsum plaster§
- Softwood tongue-and-groove floorboards
- Plywood/Chipboard Floors#

BAL Prime APD – TWO coats

(1st coat diluted 1:1 with clean water by volume, 2nd coat neat)

BAL Bond SBR – TWO coats

(1st coat diluted 1:4 with clean water by volume, 2nd coat diluted 1:2 with clean water by volume)

BAL All-in-One Plus – TWO coats

(1st coat diluted 1:4 with clean water by volume, 2nd coat diluted 1:2 with clean water by volume)

- Calcium sulphate screed
- Anhydrite screed

BAL Prime APD – ONE coat

(diluted 1:1 with clean water by volume)

BAL Bond SBR – ONE coat

(diluted 1:4 with clean water by volume)

BAL All-in-One Plus – ONE coat

(diluted 1:4 with clean water by volume)

- Gypsum plaster‡ (Contact BAL Technical Advisory Service)
- BAL Board§

Note: – if required i.e. surface is slightly dust or porous.

- Cement:sand render§
- Concrete§
- Cement:sand screed§

BAL All-in-One Plus – One coat

(diluted 1:2 with clean water by volume)

- Gypsum plaster^

§ If using cementitious adhesives

‡ If using ready-mixed dispersion adhesives

Apply ONE coat of neat **BAL Bond SBR or BAL All-in-One Plus** to the reverse side and edges

Note: Seek further advise/guidance from with board manufactures on priming surfaces or contact BAL Technical Advisory Service

BAL: a brief history

60 YEARS
Tiling Industry Leadership

1960s

Most tile fixers were still using a traditional cement: sand mix first introduced in the Victorian age, with tiling still extremely low per capita in the UK.

The 60's saw much larger increases in tile usage, changing substrates and trends

Concerned that there were no specialist products, support or training for tiling installation in the UK, the British Ceramic Tile Council (members from all the UK tile manufacturers) formed a new company "**Building Adhesives Ltd**" to specifically develop high quality tiling adhesives, backed by technical support and lead standards in the UK:

BAL was born with the first adhesives sold on 1st February 1963

CTF – first cement-based tile adhesive launched

First company to deliver CPD seminars to RIBA and the tiling industry

1970s

The UK tile market continued to grow with new tiles imported from Southern-Europe also increasingly available. Building Adhesives Ltd continued to lead the UK market in the manufacturing and development of high-quality adhesives and grouts through the market-leading BAL brand.

1980s

The emergence of new markets in the Middle East and Far East led to a world-wide boom in tile production.

Responding to developing trends in tile design, substrates and fixing techniques, Building Adhesives led the way with changes in technology, particularly new ready-mix technologies first launched in this decade.

BAL launches first epoxy grouts into the UK tiling industry

1990s

With massive growth in UK tiling and a demand to improve the quality of workmanship, Building Adhesives became the first adhesive manufacturer to open a specialist training centre for standards and fixing techniques.

BAL launches UK's first anti-microbial wall and floor grouts

2000s

Building Adhesives becomes part of the ARDEX Group and continued to set high standards in quality and production, becoming one of the first to obtain the triple badge of ISO 9001, 14001 and 18001, and becoming a key player within the standards bodies BS 5385, EN 12004.

As part of its constant drive to improve UK and European standards, Building Adhesives supported the launch of The Tile Association (TTA), formed to bring the whole of the UK wall and floor tile industry under one roof.

2010s

While the effects of the recession hit the construction industries hard, BAL remained at the forefront with a focus on innovation and quality to provide value for installers and clients. Time and cost saving technologies were launched as well as a continued support to training and the development of the first lead-generation service for all UK registered tilers through Tilerworld.com

BAL Fibre Strand Technology products introduced for improved performance, unique uncoupling systems requiring less adhesive and market-leading grout technology

BAL also became a proud partner of **Cool Earth** – saving an area of rainforest equivalent to more than all the professional football pitches in the UK, and growing!

2020s+

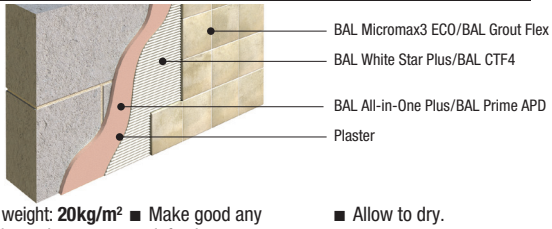
BAL continues to lead with a continued focus on solutions to provide value and support new trends, with seven new products already launched in just over 2 years including our simple solution to fixing external tiles and slabs.

Working through the COVID-19 pandemic –' BAL lead with its award-winning 'Back Stronger' campaign to ensure all members of the UK tiling community could communicate and get support throughout the lockdown periods and beyond.

Using global resources and solutions with ARDEX Group, and our expertise as market-leaders in the UK for 60 years, BAL continues to innovate across products, training and support services.

PREPARATION – Backgrounds: Walls

gypsum plaster



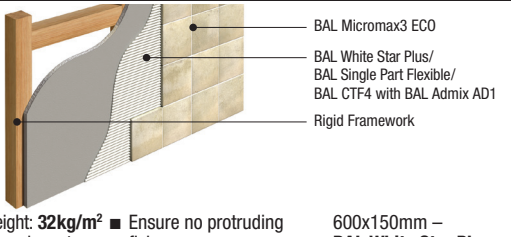
Max. tiling weight: **20kg/m²** incl. adhesive and grout

- Allow new plaster to dry for min. 4 weeks. Do not tile directly to backing coats.
- Ensure finish coat is free of contaminants and all barriers to adhesion.
- Make good any defective areas.

If plaster has a polished/ shiny surface:

- Brush with stiff bristle brush.
- Prime with **BAL Prime APD** OR **BAL All-in-One Plus** OR **BAL Bond SBR** *(see primer guide page 6).*
- Allow to dry.
- Ceramic Tile Size up to 300x300mm, or equivalent surface area of tile up to 0.09m², i.e. 450x200mm, 600x150mm – **BAL White Star Plus.**
- Any sized tile and suitable for porcelain – **BAL CTF4/ BAL Flex One.**

gypsum plasterboard



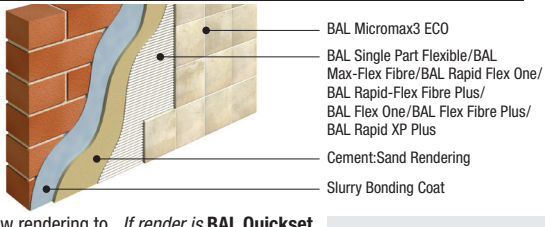
Max. tiling weight: **32kg/m²** incl. adhesive and grout

- Check that boards are securely fixed, ideally at 300mm centres, or as per the board manufacturer's recommendations, and are rigid.
- Ensure no protruding fixings.

If using BAL cementitious adhesives:

- Allow to dry.
- Up to 300mm tile size (ceramic) or equivalent surface area of tile up to 0.09m², i.e. 450x200mm, 600x150mm – **BAL White Star Plus.**
- Any sized tile and suitable for porcelain – **BAL Single Part Flexible** OR **BAL CTF4** with **BAL Admix AD1.**

cement:sand rendering



- Allow new rendering to dry for min. 2 weeks.

If swimming pool: allow min. 3 weeks.

If render contains **BAL Quickset Cement:** allow 4 hours to dry.

If render is **BAL Quickset Render:** allow 2 hours to dry.

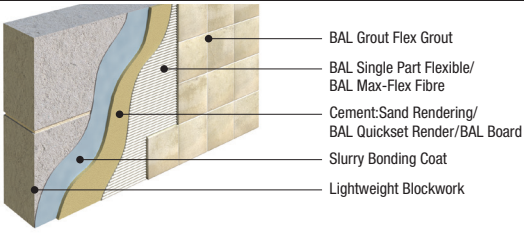
- If required, prime with **BAL Prime APD** OR **BAL All-in-One Plus** *(see primer guide page 6).*

SLURRY BONDING COAT

- 1 part sand to 1 part **BAL Quickset Cement**/portland cement by weight, mixed with appropriate amount of **BAL Bond SBR or BAL All-in-One Plus** pre-diluted 1:1 by volume with water.

PREPARATION – Backgrounds: Walls

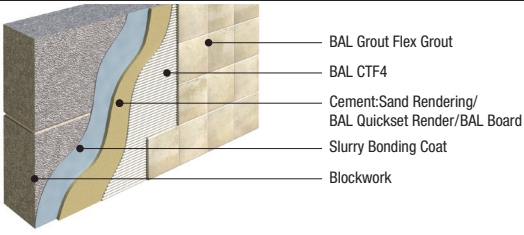
lightweight blockwork/walling



- Allow new block mortar to dry for min. 6 weeks before rendering/plastering.
- Prime with **BAL Prime APD** OR **BAL All-in-One Plus** *(see primer guide page 6).*
- Allow to dry.

NOTE: For all surfaces, prior to receiving tiles, apply BAL Quickset Render or BAL Board.

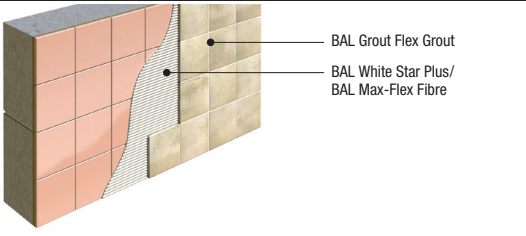
dense concrete/block walling



- Allow new block mortar to dry for min. 6 weeks before rendering/plastering.

NOTE: For all surfaces, prior to receiving tiles, apply BAL Quickset Render or BAL Board.

existing glazed tiles/bricks



- Check that:
  - existing tiles/bricks are securely bonded to their substrate, and in sound clean condition,
  - underlying background/ walls can support the weight of two layers of tiles.

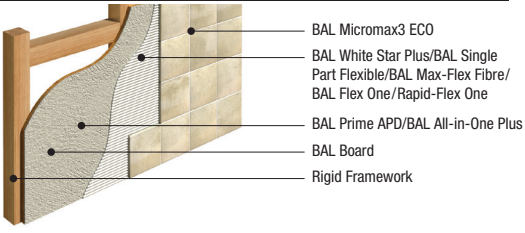
If existing tiles are NOT sound:

- Remove any loose tiles.
- Make good with **BAL Quickset Render** or 1:3 cement:sand mortar applied over a slurry bonding coat. One part portland cement to one part sand by weight and **BAL Bond SBR** OR **BAL All-in-One Plus** diluted 1:1 by volume with water.

- Up to 300mm tile size (ceramic) or equivalent surface area of tile up to 0.09m^2, i.e. 450x200mm, 600x150mm – **BAL White Star Plus.**
- Any sized tile and suitable for porcelain and mosaics – **BAL Max-Flex Fibre.**

PREPARATION – Backgrounds: Walls

BAL Board sheets



Max. tiling weight (dependent on board type/thickness): **100kg/m²** incl. adhesive and grout.

- Screw boards to seasoned timber framework (or other suitable proprietary framework) at 300mm centres.

  NOTE: See BAL TECHNICAL DATA SHEET for further information.

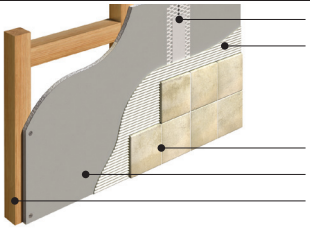
- Ensure boards are securely fixed and rigid.
- Up to 300mm tile size (ceramic) or equivalent surface area of tile up to 0.09m², i.e. 450x200mm, 600x150mm – **BAL White Star Plus.**

  NOTE: Note: Priming is not required when using BAL White Star Plus.

- Any sized tile and suitable for porcelain – **BAL Single Part Flexible/ BAL Max-Flex Fibre/ BAL Flex One/ BAL Rapid-Flex One.**

PREPARATION – Backgrounds: Walls

lightweight tile backing boards onto rigid framework



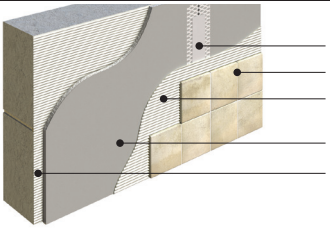
NOTE: Check with board manufacturer that tile backer boards are suitable.

Max. tiling weight (dependent on board type/thickness): ▾**40kg/m²** incl. adhesive and grout.

- Screw boards to seasoned timber framework (or other suitable proprietary framework) at 300mm centres – or as recommended by board manufacturer.
- Ensure boards are securely fixed and rigid.
- Ensure no protruding fixings.
- Use appropriate tape over joints.

▾Check with individual board manufacturer.

lightweight tile backing boards onto concrete/blockwork/brick/render



NOTE: Check with board manufacturer that tile backer boards are suitable and fit for purpose.

Do NOT seal or prime board surfaces to be tiled.

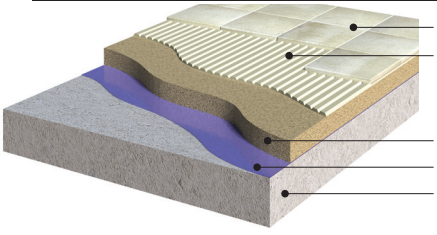
As a guide max. tiling weight approx. **40kg/m²** including adhesives and grout (dependent on board type and thickness) or as recommended by the manufacturer.

- Fix boards to walls using adhesive (e.g. **BAL Single Part Flexible, BAL Max-Flex Fibre, BAL Rapid Flex One, BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Flex Fibre Plus/BAL Rapid XP Plus** or **BAL Supercover Rapid Flex**) as recommended by board manufacturer.
- Ensure boards are securely fixed and rigid.
- Use appropriate tape over joints.

▾Check with individual board manufacturer.

PREPARATION – Bases: Floors

cement:sand screed (bonded)



For newly-laid screed

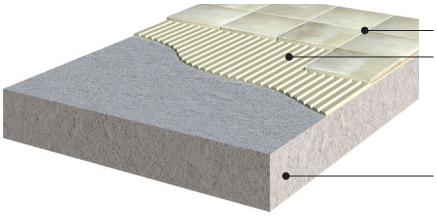
- Allow screed to dry for min. 3 weeks – or 4 hours if screed is **BAL Quickset Cement.**

If fixing with **BAL New Floor** *adhesive,* allow screed to dry for at least 24 hours.

For existing screed

- Cut out all loose or hollow parts.
- Apply slurry bonding coat.
- Make good with EITHER 1:3 cement:sand mortar OR **BAL XL Floor One/ BAL Rapid XP Plus** (for localised areas). Apply over a slurry bonding coat.
- Where required, apply a suitable levelling compound e.g **BAL Level Max** or **BAL Level Fast** dependent on underlying substrate.

concrete base



For newly-laid concrete

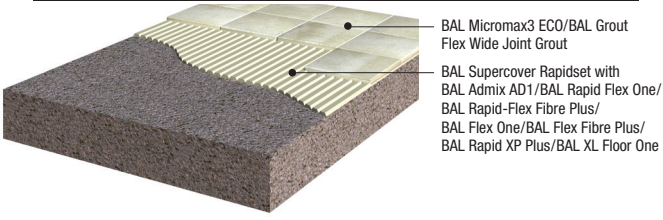
- Allow concrete to dry for min. 6 weeks.

If fixing with **BAL New Floor** *adhesive,* allow 1 week drying time.

- Before tiling, mechanically remove laitance from concrete surface (e.g. grit blasting) or scarifying.

PREPARATION – Bases: Floors

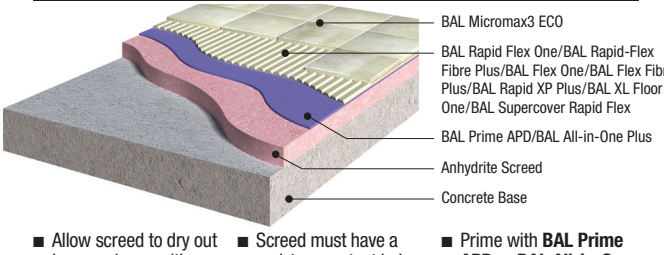
asphalt base (internal floors)



NOTE: Mastic asphalt should be suitable type (e.g. flooring grade).

- Check that asphalt is:
  - sound, with a natural float finish,
  - laid on a firm rigid base,
  - a sufficiently regular surface to suit bedding depths of adhesive.
- Remove any surface contaminants.

anhydrite screeds



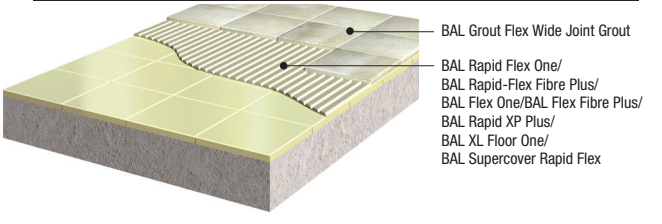
- Allow screed to dry out in accordance with manufacturer's instructions.
- Mechanically remove top surface to remove weak/dusty surface layer(s) as per the screed manufacturer's recommendations.
- Screed must have a moisture content below 0.5% water by weight (or 75% RH).

In internal dry areas

- Remove all dust and loose material, e.g. by vacuum etc.
- Prime with **BAL Prime APD** or **BAL All-in-One Plus** *(see primer guide page 6)*.

  Where required apply a levelling compound e.g **BAL Level Max** or **BAL Level Fast** dependent on underlying substrate.

existing ceramic/quarry tile/ terrazzo/natural stone base



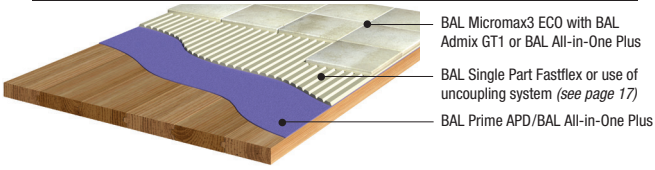
- Ensure existing tiles are securely bonded to their substrate, and in sound, clean condition.

If existing tiles are NOT sound:

- Remove any loose tiles.
- Remove any existing tile sealers.
- Remove any unsound adhesive residue without damaging the base.
- Apply slurry bonding coat.
- Whilst slurry coat is wet, make good with
  - EITHER 1:3 cement: sand mortar,
  - OR **BAL XL Floor One/ BAL Rapid XP Plus.**

NOTE: When tiling on to existing glazed tiles, use BAL Admix AD1 1:3 with clean water to BAL Rapid Flex One/BAL XL Floor One/ BAL Rapid Flex Fibre Plus.

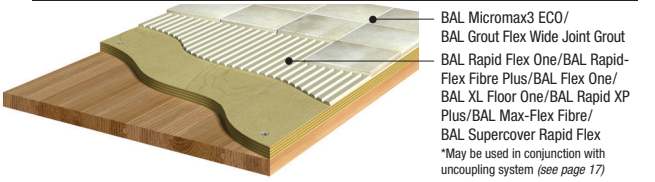
softwood/tongue & groove floorboards



- Check that boards are dry and free from varnish, paint, sealers and other barriers to adhesion.
- Ensure all boards are securely fixed and rigid: all screwed down to supporting joists at 300mm centres.
- Ensure no protruding fixings.
- Prime with **BAL Prime APD** or **BAL All-in-One Plus.** *(see primer guide page 6).*
- Make good with a levelling compound e.g **BAL Level Max** or **BAL Level Fast** dependent on underlying substrate.

NOTE: See admixture guide when grouting *(page 24).*

plywood overlaid tongue & groove floorboards



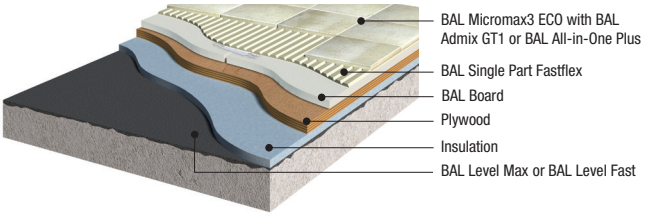
NOTE: plywood should be water resistant grade 15mm min. thickness.

- Check that existing floorboards are dry, securely fixed and acceptably level.
- Make good with a levelling compound e.g **BAL Level Max** or **BAL Level Fast** dependent on underlying substrate.
- Seal plywood reverse side/edges with **BAL Bond SBR.**

NOTE: Dependent on the type and quality of the plywood, the surface may require priming.

- Lay sheets with staggered cross joints, and 0.5-1mm gap between boards.
- Screw down sheets at 300mm centres ensuring screw heads are flush with the surface.

floating/plywood floors

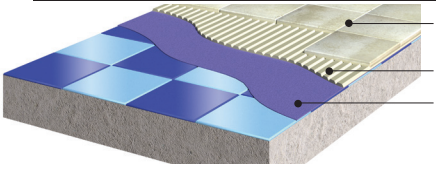


NOTE: timber sheets should be water resistant or exterior grade.

- If concrete base is not flat, level it as required with **BAL Level Max** or **BAL Level Fast.**
- Check insulation can support tiling load.
- Seal timber reverse side/edges with **BAL Bond SBR** or **BAL All-in-One Plus.**
- Ensure timber sheets are:
  - dry and rigid,
  - tongue & groove edged,
  - glued and well-bonded (with minimal joints).
- Leave min. 15mm gap between board edges and walls/ floor penetrations.
- Fill gaps with insulation strip.
- Ensure finished floor is stable and should be capable of carrying anticipated loading without excessive deflection.

NOTE: See admixture guide when grouting *(page 24).*

existing vinyl tile/sheet base



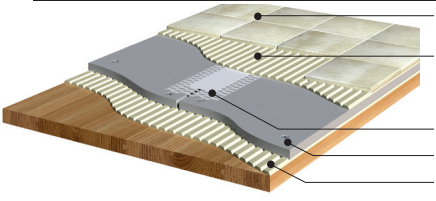
- Ensure existing vinyl tiles/sheets are securely bonded to their substrate, and in sound clean condition.

If existing tiles are NOT sound.

- Remove any loose tiles.
- Make good with a levelling compound, e.g. **BAL Acrybase**, dependent on underlying substrate.
- Remove all traces of grease/polish.

NOTE: Priming is NOT necessary if using a flexible cementitious adhesive e.g. **BAL Rapid Flex One**, **BAL Rapid-Flex Fibre Plus**, **BAL Flex One**, **BAL Flex Fibre Plus, BAL Rapid XP Plus, BAL Supercover Rapid Flex**, **BAL Single Part Flexible** or **BAL Max-Flex Fibre**.

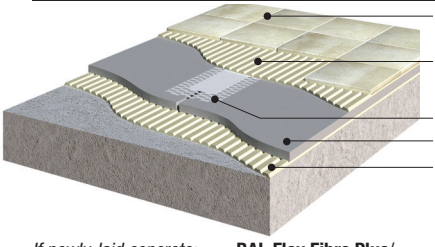
BAL Board/lightweight backer board (min. 10mm thick) onto timber floors



- Prime timber floors with **BAL Prime APD** or **BAL All-in-One Plus** *(see primer guide page 6)* before attempting to fix backer board.
- Lay *first* 3–6mm bed of **BAL Rapid Flex One/ BAL Rapid-Flex Fibre Plus/BAL Flex One/ BAL Flex Fibre Plus/ BAL Supercover Rapid Flex** onto timber.
- Before this has set, screw down tile backer boards at 300mm centres.
- Ensure no protruding fixings.
- Check that tile backer boards are securely fixed and rigid.
- Use appropriate tape over joints.

▾Check the suitability of the tile backer board with the manufacturer.

BAL Board/lightweight backer board onto concrete floors

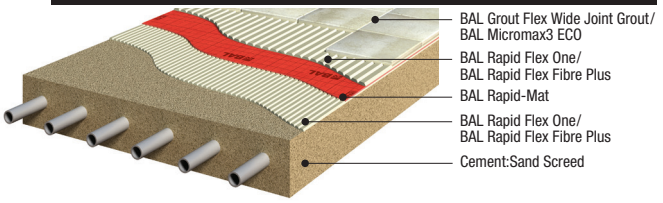


If newly-laid concrete:

- Allow concrete to dry for min. 6 weeks.
- Lay *first* 3–6mm bed of **BAL Rapid Flex One/ BAL Rapid-Flex Fibre Plus/BAL Flex One/ BAL Flex Fibre Plus/ BAL Rapid XP Plus/BAL Supercover Rapid Flex** onto timber.
- Before this has set, place tile backer boards into position.
- Use appropriate tape over joints.
- Allow adhesive to set before tiling begins.
- Check that tile backer boards are stable, level and rigid.

▾Check the suitability of the tile backer board with the manufacturer.

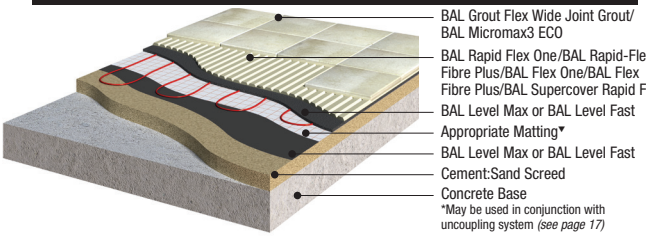
heated screeds
(integral underfloor heating)



For newly-laid screed:

- Allow screed to dry for min. 3 weeks – or 1 week if screed is **BAL Quickset Cement.**
- Screed may then be gradually heated up – up to a maximum operating water temperature of up to 45°C, as recommended by the heating manufacturer – and maintained at that level for 3 days. Then allowed to cool to room temperature.
- Heating to be turned off for 24 hours prior to tiling – or, in cold weather, reduced to below 15°C.

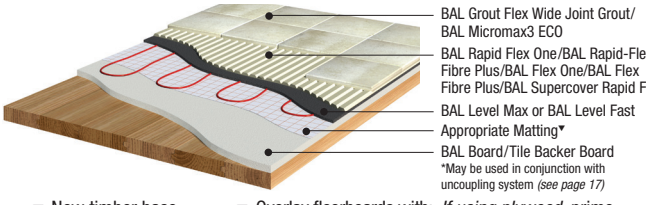
under tile heating
on cement:sand screeds



- Base must be:
  - flat enough to allow tiling,
  - suitable for anticipated service conditions,
  - strong/rigid enough to support tile finish,
  - free from contamination.
- *If new base,* allow to dry: concrete min. 6 weeks; screed min. 3 weeks.
- Prime highly absorbent cement:sand screed with **BAL Prime APD** or **BAL All-in-One Plus** *(see primer guide page 6).*
- *If base is not flat,* level it with **BAL Level Max** or **BAL Level Fast.**

▾ Check the suitability of matting with the manufacturer.

under tile heating
over timber floors

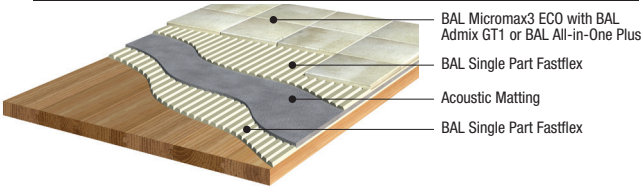


- New timber base should have noggings between joists at 300mm centres.
- Floor base must be strong/rigid enough to support tile finish.
- Overlay floorboards with:
  - BAL Board/tile backer boards (min. thickness 10mm) OR
  - plywood (min.thickness 15mm).
- Screw boards/plywood to both noggings and joists at 300mm centres.

If using plywood, prime with **BAL Bond SBR** or **BAL All-in-One Plus** *(see primer guide page 6).*

▾ Check the suitability of matting and the tile backer board with the manufacturer.

impact sound-deadening insulation



NOTE: BAL Single Part Fastflex should be used with approved matting systems to achieve requirements of Building Regulations 2000: Part E – Resistance to the passage of sound.

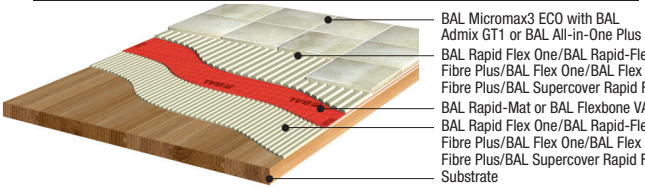
- Lay matting on flat, rigid base with no protrusions.
- Spread adhesive over base.

NOTE: Priming will be required on timber floors *(see primer guide page 6).*

- Bond matting as per manufacturer's instructions.

For information on approved systems, contact BAL Technical Advisory Service *(details on back cover).*

uncoupling membrane

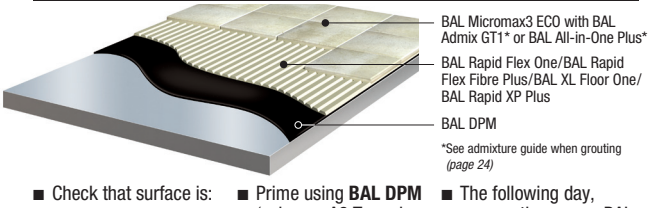


- Check that substrate is:
  - dry, sound, firm and rigid,
  - level, with a regular surface to suit bedding depths of adhesive.
- Where required apply a suitable levelling compound e.g **BAL Level Max** or **BAL Level Fast** dependent on underlying substrate.
- Lay 2–3mm bed of **BAL Rapid Flex One**, **BAL Rapid-Flex Fibre Plus**, **BAL Flex One**, **BAL Flex Fibre Plus** or **BAL Supercover Rapid Flex** onto base, using a BAL Mosaic Trowel or equivalent.

NOTE: Priming will be required on timber floors *(see primer guide page 6).*

- Before this has set, lay **BAL Rapid-Mat** or **BAL Flexbone VA** on adhesive bed.
- Tiling can be started once the **BAL Rapid-Mat** or **BAL Flexbone VA** is fixed down.

steel background/base

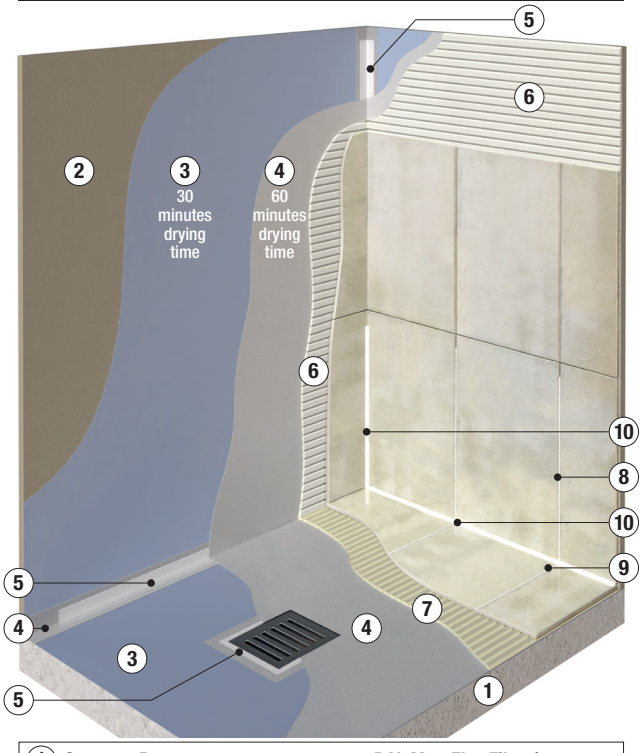


*See admixture guide when grouting *(page 24)*

- Check that surface is:
  - firm and rigid,
  - free from deflection,
  - contaminant-free,
  - degreased.
- Prime using **BAL DPM** (using an A2 Trowel and roll out). When wet, blind the surface with BAL Sand to provide a mechanical key before tiling.
- The following day, remove the excess BAL Sand from the surface using a vacuum cleaner to provide a suitable key before tiling using a BAL Flexible Cement based Adhesive.

PREPARATION – Tanking System

tank-it



1	**Concrete Base**
2	**Plasterboard**
3	**BAL Tank-It (powder + liquid)**
4	**BAL Tank-It (powder + liquid)**
5	**BAL Tank-It Tape**
6	**BAL Max-Flex Fibre / BAL Flex One / BAL Rapid Flex One**
7	**BAL Max-Flex Fibre / BAL Flex One / BAL Rapid Flex One**
8	**BAL Micromax3 ECO**
9	**BAL Micromax3 ECO**
10	**BAL Micromax Sealant**

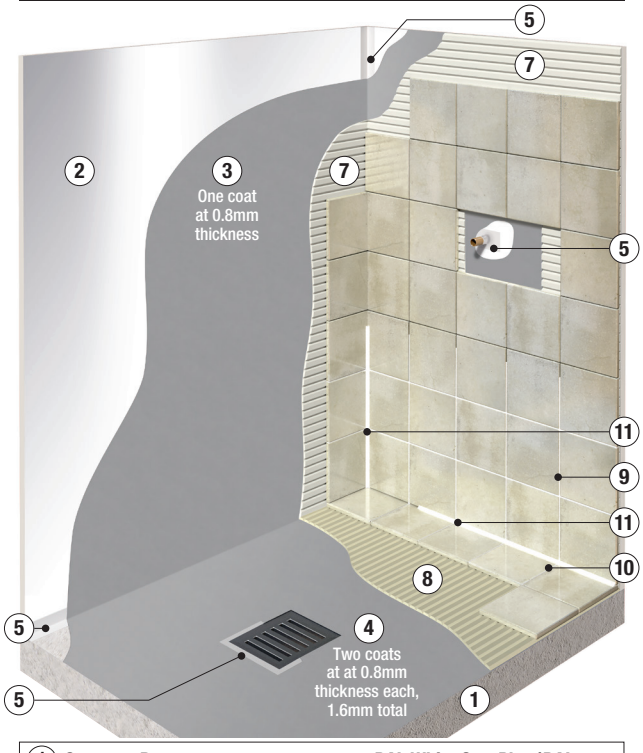
- Before applying the mixed product, apply the self-adhesive **BAL Tank-It Tape** at:
  - internal and external corners of walls/partitions,
  - wall junctions with base/upstands/columns,
  - at pipe penetration points/drainage channels/outlets,
  - cracks/joints in background/base.

NOTE: Must use **BAL Tank-It Tape** as this is an alkaline resistant tape designed not to break-down in wet environments.

- Apply the mixed **BAL Tank-It Powder** and **Liquid** to the walls and floors, using 4 x 4mm notched trowel and floating trowel or brush
- Ensure there are no air pockets or voids.
- The product must be applied to the full height of the wet area and floor where tiles are used and exposed to water.
- Leave to dry for approximately 30 minutes until touch dry before applying the second mix.
- Repeat the mixing and application (as above).
- Once applied, leave to dry for approximated 60 minutes until touch dry – product changes colour from grey to black.
- Background is now ready to receive tiles.
- Ceramic or porcelain tiles – **BAL Single Part Flexible**, **BAL Max-Flex Fibre**, **BAL Flex One** or **BAL Rapid Flex One**.

PREPARATION – Waterproofing

waterproof 1C



1 **Concrete Base**	7 **BAL White Star Plus / BAL Max-Flex Fibre / BAL Flex One / BAL Rapid Flex One**
2 **Plasterboard**	8 **BAL Single Part Flexible / BAL XL Floor One / BAL Rapid Flex One**
3 **BAL Waterproof 1C** 1 coat at 0.8mm thickness	9 **BAL Micromax3 ECO**
4 **BAL Waterproof 1C** 2 coats at at 0.8mm thickness each, 1.6mm total	10 **BAL Micromax3 ECO**
5 **BAL Scrim Tape**	11 **BAL Micromax Sealant**

- **BAL Waterproof 1C** can be applied without any priming onto plasterboard, cement: sand render, screeds, concrete, plywood overlays, **BAL Board** (smooth side) and onto **BAL Rapid-Mat**.
- Priming is only required on plaster, cement boards and **BAL Board** (tiling side). Here, one coat neat of **BAL Primer 1C** must be used, allowing to dry for 15-30 minutes.
- Apply **BAL Scrim Tape** at:

– internal/external corners of walls, partitions, upstands, columns etc.,
– pipe penetrations, drainage channels and outlets,
– junctions of different background/ base materials,

- Apply **BAL Waterproof 1C** over each piece of Tape.
- Apply **BAL Waterproof 1C** coating to WALLS, and then the floor area.
- Allow membrane to dry for 2 hours before tiling.
- Up to 300mm in size or equivalent surface area of tile up to 0.09m^2, i.e. 450x200mm, 600x150mm (ceramic) – **BAL White Star Plus**.
- Over 300mm in size (porcelain tiles) – **BAL Flex One** or **BAL Rapid Flex One**.

NOTE: BAL White Star Plus will take a min. of 3 days to dry at 20°C.

movement joints

Movement joints

Tiling stresses – causes and effects

Tiling can be affected by:

- stresses in the substrate including drying shrinkage, deflection and moisture movement.
- thermal and moisture changes in the tiled area.

This can result in tiles losing adhesion, bulging and/or cracking.

The solution

Movement joints, extending through the substrate, adhesive bed and tile finish, can counteract this problem. They should be placed wherever movement is likely to occur *(see opposite page 19)*. Building designers should assess degree of stress likely and consider all factors including background type and bed.

Movement joints should be correctly formed according to requirements of **BS 5385**, parts 1–5.

BAL tips

making effective movement joints

Width

- To be sufficient to permit sealant to accommodate expected degree of movement.

Fill

- Compressible back-up material*, topped up to final level with sealant.
- Ideally, sealant should NOT bond to this back-up material as this would restrict sealant movement, increase stress, etc.
- Sealant should only adhere to opposing faces of joint, allowing it to compress/stretch more freely.

Perimeter joints

- Min. 6mm in cross-section: fill with **BAL Micromax Sealant.**
- For perimeter movement joints with porcelain and suitable natural stone in external applications, use MorTec Soft, a neutral curing sealant.

NOTE: Part of the BAL range, MorTec Soft Sealant can be used.

Intermediate joints

- If heavy-trafficked, may need to be filled with harder-wearing, more durable sealant type or suitable pre-formed strip.

* e.g. cellular rubber/plastic, cellular polyethylene fibre boards. Alternatively, use bond-breaker material such as PTFE tape.

For interior WALL tiling

Install in accordance with **BS 5385-1**.

- Locate joints:
  - Over existing and/or structural movement joints,
  - Where tiling abuts other materials,
  - Where tiling is continuous across junctions of different background materials,
  - In large tiled areas, at internal vertical corners and at 3m–4.5m centres, both horizontally and vertically,
  - Where stresses are likely to be concentrated (e.g. at changes of alignment).

Walls subject to significant thermal change or vibration

- Install movement joints at more frequent intervals.

For exterior WALL tiling

Install in accordance with **BS 5385-2**.

- Locate joints:
  - Over existing and/or structural movement joints,
  - Where cladding abuts other materials,
  - Where tiling is continuous across junctions of different background materials,
  - At storey heights and approx. 3m-4.5m intervals vertically,*
  - At external corners, vertically within 0.25m-1m from angle, and symmetrically where possible,
  - Internal corners.

* Ideally, locate over joints in structural background and at structural material changes (e.g. *horizontal:* top and bottom of floor slab; *vertical:* internal corners and at junctions with columns).

For interior/exterior FLOOR tiling

Install in accordance with **BS 5385-3**.

- Locate joints:
  - Over existing and/or structural movement joints,
  - Around floor perimeter, and where tiling abuts columns, kerbs, steps and plant fixed to the base.

Large floor areas

- Divide area to be tiled into bays with perimeter joints.
- Max. size for each bay: 10m x 10m.

Suspended floors

- Reduce bay size.
- Provide additional joints over supporting walls or beams.

External balconies or roof terraces

- Intermediate movement joints should be incorporated within the tile assembly at intervals not exceeding 3m.

Floors subject to significant thermal change

- Divide into bays max. 40m^2 in area – with edge length max. 8m.

APPLICATION – Equipment

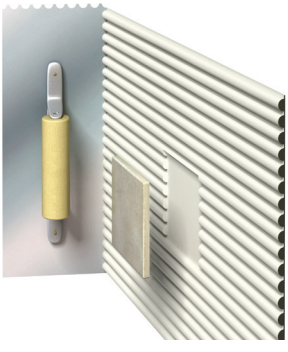
trowels/tools

Get it right by ensuring you have the correct trowel for the job. It can often be vital to a successful installation.

In addition to trowels, and depending on the specific project task, other tools are typically required. The BAL range also includes:

- Mixing Bucket
- Grout Float
- Gauging Trowel
- Hand Sponge
- Sponge Board
- Washboy

wall tiling



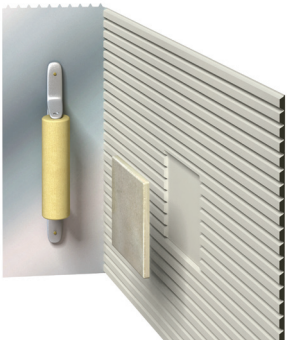
Round Notched Trowel

Edge profile: 6mm round notches at 12mm centres.

Coverage: approx. 70%.

Use for: thin-bed fixing, interior dry areas.

Tiles: most ceramics/marble/natural stone WALL tiles under 300mm in size.



Thin Bed Solid Bed Trowel

Edge profile: 10mm tapering notches, 5mm deep, at 12.5mm centres.

Coverage: approx. 100% at 2–3mm depth.

Use for: solid-bed fixing on all flat wall surfaces incl. interior wet areas and hygiene critical areas.

Tiles: most ceramics/marble/natural stone WALL tiles under 300mm in size.

A2 V Notched Trowel

Use for: BAL DPM and provided 200 microns for waterproofing and priming.

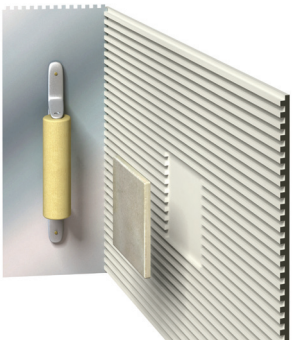
NOTE: The priming coat must be blinded with BAL Sand when tiling.

B2 V Notched Trowel

Use for: BAL DPM and provided 350 microns when used as a Damp Proof Membrane (DPM).

NOTE: When tiling, a priming coat of BAL DPM must be used with a A2 Trowel and blinded with BAL Sand.

wall/floor tiling



Mosaic Trowel

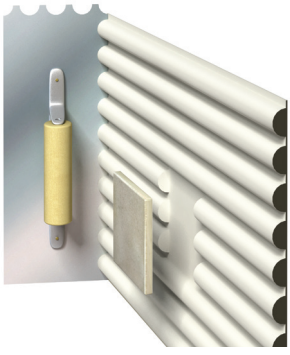
Edge profile: 4mm square notches at 8mm centres.

Coverage: approx. 90% to 100%.

Use for: thin-bed fixing.

Tiles: mosaics/WALL and FLOOR tiles up to 100x100mm and fixing uncoupling membranes e.g. BAL Rapid-Mat/BAL Flexbone VAried.

NOTE: Can be used to trowel out BAL Tank-It before using a floating trowel.



Thick Bed Solid Bed Trowel

Edge profile: 20mm round notches, 10mm deep, at 28mm centres.

Coverage: 100% achievable at 3–4mm bed depth.

Use for: solid-bed fixing.

Tiles: most WALL and FLOOR tile types (with recessed/keyed back patterns). Ideal for fixing large format wall tiles and up to 300mm floor tiles.

floor tiling

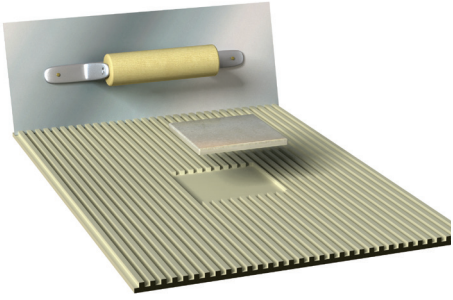
Solid Bed Tipped Trowel

Edge profile: 5mm notches at 6mm centres – with 3mm protruding tips above notches to ensure 4mm solid bed.

Coverage: approx. 100%.

Use for: BAL Single Part Fastflex.

Tiles: most FLOOR tiles.



Large Format Trowel

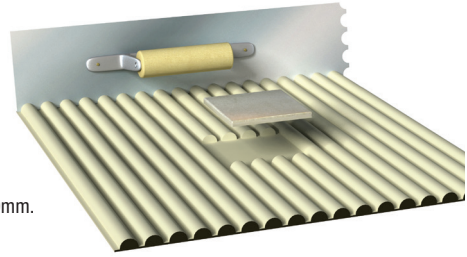
Edge profile: 20mm round notches, 13mm deep, at 28mm centres.

Coverage: approx. 100%.

Use for: fixing larger tiles.

Tiles: FLOOR tiles over 300x300mm.

Use for: BAL XL Floor One.



mixing

IMPORTANT: These are general mixing notes only – see individual product packs for specific mixing instructions.

General

- All BAL packs (except ready-mixed products) provide:
  - detailed mixing instructions,
  - pot life/working times at typical ambient temperature (20°C).

Mixing most* powdered adhesives and grouts

- Mix powder with clean, cold water in the proportions shown until a smooth paste is achieved.
- If using an electric drill mixer, blend at slow speed. *Do NOT exceed 300rpm.*
- For *cementitious adhesives and grouts*, wait 2–3 minutes, then briefly mix again. *Do NOT entrain air by mixing at too high speed or over-mixing. NEVER add extra water to mixed adhesive or grout: this would reduce final strength.*

For further information see the latest version of the BAL Technical Data Sheet.

* NOT applicable to 2-part or 3-part epoxy grouts.

Mixing of Two and Three Part Epoxy grouts/DPM coating

- The individual components should be thoroughly stirred before being mixed together.
- The entire contents of the hardener/filler container should be poured into the resin container and the two/three materials mixed thoroughly for at least 3 minutes using a heavy duty slow speed drill and spiral paddle.
- Some of the mixed components should be re-introduced back into the used containers in order to activate any residue and then pour back into the large mixing vessel and re-mix for 30 seconds.

NOTE: Mixing in this way will ensure product consistency and also that any resin or hardener that remains in the containers after application will cure to allow for easier waste disposal.

BAL tips

temperature and working time

Remember to allow for variance in mixed product working time/pot life if the ambient temperature is significantly above or below 20°C.

- **Higher** temperatures = **shorter** working time
- **Lower** temperatures = **longer** working time

grouting in more demanding situations

If using these products for grouting in especially demanding situations (EXAMPLE: tiling to single layer timber floors/walls), **BAL Admix GT1** should be diluted 1:2 by volume with water – **BAL Micromax3 ECO Grout** or **BAL All-in-One Plus** diluted 1:3 by volume with water.

Mixing admixtures

The diluted admixture should replace an equivalent volume of the required water in mixing the product.

For adhesives

- **BAL Admix AD1** may be added, diluted 1:1 by volume with water, to:
  - **BAL CTF4**
  - **BAL Supercover Rapidset**
- **BAL All-in One Plus** may be added, diluted 1:2 by volume with water, to:
  - **BAL CTF4**
  - **BAL Supercover Rapidset**
- **BAL Admix AD1** or **BAL All-in-One Plus** may be added, diluted 1:3 by volume withwater, to:
  - **BAL Rapid Flex One**
  - **BAL XL Floor One**
  - **BAL Flex One**
  - **BAL Rapid Flex Fibre Plus**
  - **BAL Flex Fibre Plus**
  - **BAL Rapid XP Plus**

For grouts

- **BAL Admix GT1** may be added, diluted 1:2 by volume with water, to:
  - **BAL Grout**
  - **BAL Micromax3 ECO Grout**
- **BAL All-in-One Plus** may be added, diluted 1:3 by volume with water, to:
  - **BAL Grout**
  - **BAL Micromax3 ECO Grout**

For single layer timber floors

- **BAL Admix GT1** may be added to:
  - **BAL Micromax3 ECO** (1:2 with water)
- **BAL All-in-One Plus** may be added to:
  - **BAL Micromax3 ECO** (1:3 with water)

usage

IMPORTANT: These are general usage notes only – see individual product packs for specific application instructions/ usage information. *Or, if you require more detailed advice and guidance, contact the BAL Technical Advisory Service.*

General

All packs carry instructions for use, including recommended trowel type(s) and other tools to be used for application.

As a general rule, do NOT apply BAL adhesives or grouts in temperatures below 5°C.

Good practice: applying adhesives

- When using adhesive, apply max. 1m² at a time. When using BAL adhesives with FST, longer open time can be achieved.
- Ensure ribs all run in same direction.
- Fix tiles before adhesive forms skin (typically 20–30 minutes) dependant upon the BAL tile adhesive. If skin has formed, remove adhesive and apply fresh layer.

BAL tips

fixing light natural stone

Certain types of natural stone (e.g. limestone, travertine and some granite) may be susceptible to water staining. Recommendation, if fixing such materials: use a BAL rapid-setting **white** adhesive (excluding Supercover Rapid Flex or BAL Single Part Fastflex).

Good practice: applying grouts

- When grouting, work in small areas, using a grout float or squeegee.
- Completely fill tile joints, and compact well, ensuring no voids.
- Allow grout to dry for approx. 15 minutes before cleaning tile surfaces dependent upon temperature.

BAL tips

when grouting porous tiles and some natural stone

Before grouting, check for any risk of tiles staining by applying grout to small trial areas of tile. If discolouration occurs, or removal of grout from the surface seems difficult, apply **BAL Protective Sealer** – and repeat the trial. The sealer will protect the tile surface and help prevent staining until after grouting is complete.

BAL tips

checking laid tiles

Occasionally lift a tile to check the adhesive contact area. There should be no voids in solid bed fixing. In wet duty or external installations, water can accumulate in voids which can be detrimental. In the case of external tiling, damage can occur on freezing. For **floors**, a hidden void could lead to tiles cracking under loading. Insufficient adhesive contact for **wall** tiles could reduce its capacity to carry the tiles' weight, and cause them to slip or fall.

Coverage

The **BAL PRODUCT SELECTION GUIDE**, and all BAL adhesive, grout and ancillary product packs carry typical guidance to indicate coverage in normal use.

This is stated for *the full pack quantity concerned* – with assumed dimensions stated in each case:

- **For adhesives:** assumed thickness of the adhesive bed.
- **For grouts:** assumed size(s) of the tiles PLUS width of the joint.

Where applicable, typical coverage is given for different applications/ usage circumstances.

Important timings after installation

Once completed, installations are subject to minimum periods before tiled areas may be used under normal service conditions:

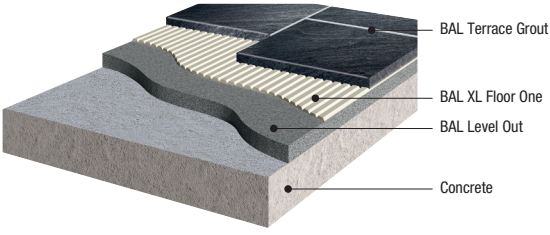
- *Shower installation:* must NOT be used for at least 2 weeks (as required by **BS 5385-4**).
- *Swimming pool installation:* must NOT be filled for at least 3 weeks after grouting.
- *Floor tile installation:* wait minimum 24 hours before allowing normal trafficking.
- *Underfloor heated tile installation:* heating should NOT be switched on for min. 2 weeks *(see manufacturer's guidelines).*

Health & Safety

When using BAL products, ensure you have read and understood the Health & Safety Warning associated with each product concerned.

Panels giving statutory advice and describing Best Practice precautions are included on every pack.

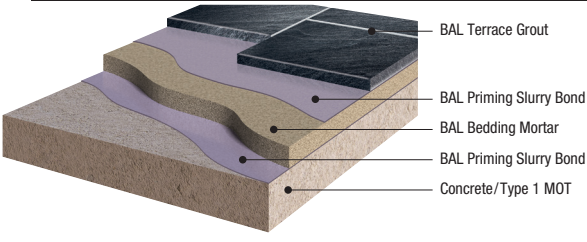
installation onto concrete



For newly-laid concrete

- Allow concrete to dry for min. 6 weeks.
- Ensure direct-to-earth sub-floors incorporate an effective damp proof membrane.
- Mechanically remove any laitance from the concrete surface.
- Thoroughly dampen the substrate with water, taking care not to leave any pools of water, before applying **BAL Level Out**.

concrete/Type 1 MOT base



For Type 1 MOT

- Ensure suitable Type 1 MOT grade laid to correct depth and be fully compacted.
- Sub-base should be stable and not liable to settlement.
- Ensure adequate falls are introduced into the sub-base.
- Prime with 2-3mm of **BAL Priming Slurry Bond.**
- **BAL Bedding Mortar** can be laid from min 25mm up to 100mm (applied wet-on-wet).

For concrete

- Suitable for a mature concrete base.
- Ensure adequate falls are introduced into the concrete base.
- Prime with 2-3mm of **BAL Priming Slurry Bond.**
- **BAL Bedding Mortar** can be laid from min 10mm up to 100mm (applied wet-on-wet).

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APPLICATION – Frequent Questions

the top ten questions

Among 50,000+ queries handled annually by the BAL Technical Advisory Service, these are some of the most commonly asked questions – and a summary of the answers:

Q Should plaster walls be primed before tiling?

A Yes. *If using BAL cement-based powdered adhesives,* apply 2 coats of neat **BAL Prime APD** or 2 coats of **BAL Bond SBR**/**BAL All-In-One Plus** diluted 1:2 with water.

If using BAL ready-mixed adhesives, priming is not necessary UNLESS the plaster is very shiny i.e. highly polished and dusty. If so, brush surface with a stiff bristle brush and prime with **BAL Prime APD** diluted 1:1 with water or **BAL Bond SBR**/**BAL All-In-One Plus** diluted 1:4 with water.

Q Why have cracks appeared in grout joints?

A Possible reasons:

- Deflection in the substrate.
- Moisture expansion in underlying boards that are not water resistant.
- Tiles not adequately bonded to substrate.
- Grout joints wider than max. recommended width for grout product concerned – resulting in drying shrinkage.
- Joints not fully filled, leaving voids underneath grout – so grout not supported.

To increase flexural and (at tile edges) adhesion strength, and reduce water permeability, use **BAL Admix GT1**/**BAL All-In-One Plus** *(see page 24)* or use a BAL epoxy resin-based *grout.*

Q How to tile over heated screed?

A *See page 16 for base preparation details.*

Then fix tiles with 3–6mm bed of **BAL Single Part Flexible, BAL Max-Flex Fibre, BAL Rapid Flex One, BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Flex Fibre Plus, BAL Rapid XP Plus** or **BAL Supercover Rapid Flex**. When dry, grout with (min. 3mm joint) **BAL Grout Flex Wide Joint Grout** or **BAL Micromax3 ECO Grout**.

Q Can 600 x 300 mm ceramic or porcelain tile be fixed to plasterboard wall with ready-mixed adhesive?

A Not advisable. Porcelain tiles have extremely low porosity. Ready-mixed adhesives rely on water loss through the joints, background substrate or tile to achieve full bonding. As the tiles have low porosity and joints are reduced due to the large tile size, ready mix products struggle to set. Use highly polymer-modified adhesive such as **BAL Single Part Flexible, BAL Max-Flex Fibre, BAL Rapid Flex One, BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Flex Fibre Plus, BAL Rapid XP Plus** or **BAL Supercover Rapid Flex**. These set via a chemical reaction.

If required prime the plasterboard with neat **BAL Prime APD** or **BAL All-in-One Plus** diluted at 1:2 by volume with water.

Q Are there weight restrictions when tiling onto plaster?

A Yes *(See page 5).* As a general rule, remember to allow approx. 2-4kg/m^2 for weight of adhesive and grouts in addition to the weight of tiles.

Q How to fix ceramic or porcelain tiles to calcium sulphate/ anhydrite-based screed?

A *See page 13 for base preparation details.*

Protect floor against water ingress (moisture content must be <0.5% water by weight or <75% relative humidity before tiling may begin. Measure moisture by a suitable hair hygrometer <75% RH *or* CM tester ('speedy moisture tester' <0.5% water by weight) *or* oven drying @40°C.

Prime with 2 coats. First coat diluted 1:1 with water and second coat neat, using **BAL Prime APD** and allow to dry or **BAL All-in-One Plus**, first coat diluted 1:4 with water and second coat diluted 1:2 by volume to water and allow to dry.

Then fix tiles with **BAL Single Part Flexible, BAL Max-Flex Fibre, BAL Rapid Flex One, BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Flex Fibre Plus, BAL Supercover Rapid Flex** or **BAL XL Floor One**.

APPLICATION – Frequent Questions

Q How long should cement:sand screed be left before tiling?

A 3 weeks for Portland cement (including 7 days cure + 2 weeks continuous drying out in air) *or*

4 hours for screeds incorporating **BAL Quickset Cement**.

If not possible to allow Portland cement:sand screed to dry for 3 weeks, allow min. 24 hours for drying, then tile using **BAL New Floor**.

Q What is the best tile and grout for travertine tiles?

A *To avoid discolouration* on travertine, limestone or other light-coloured stone, the adhesive should be a **white** cement-based adhesive.

Also, *to avoid staining* use a rapid-setting adhesive. Ideal choices are **BAL Rapid Flex One, BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Rapid XP Plus** or **BAL Flex Fibre Plus** for walls and floors and **BAL XL Floor One** for floors only.

Lay tiles with 3–6mm solid bed onto floors. *Do NOT spot fix.*

To avoid migration of materials in solution into the travertine stone, use a grout colour similar to that of the tiles.

To avoid 'picture-framing' effects on very porous stone, seal surface using a suitable sealer. The risk may be further reduced by using a rapid setting and drying cement based grout. **BAL Grout Flex Grout**, and **BAL Grout Flex Wide Joint Grout** are all suitable for use with some natural stone.

Use a rapid-setting grout such as **BAL Micromax3 ECO Grout**.

Q Can timber floors be tiled?

A Yes – provided that they are capable of carrying the additional load, and are sufficiently stiff. To provide extra rigidity, noggings should be fitted between joists, as recommended in **BS 5385-3**.

Alternatively, fix WBP plywood (min. 15mm thick) over existing boards. Check that there is adequate ventilation and a damp-proof course.

Alternatively for timber floors which are free from deflection, overlay with a suitable tile backing board e.g. **BAL Board**.

See pages 14 and 15 for details of base preparation of timber floors – including those with and without an overlay.

For softwood tongue and groove floorboards, if direct fixing is possible, remove all traces of previous finishes (stain, varnish) and prime before tiling. Lay a solid bed of **BAL Single Part Fastflex**, ideally 3–4mm thick.

If fixing to an overlaid timber floor, lay a solid bed of **BAL Single Part Flexible Adhesive**, **BAL Max-Flex Fibre**, **BAL Rapid Flex One**, **BAL Rapid-Flex Fibre Plus, BAL Flex One, BAL Flex Fibre Plus, BAL Rapid XP Plus** or **BAL Supercover Rapid Flex**, ensuring NO voids left underneath tiles.

Q What's needed when tiling a wet room?

A Above all, make sure the walls/floor are suitable for exposure to moisture. They should be waterproofed/tanked with **BAL Tank-It** *(see page 18)* or **BAL Waterproof 1C** *(see page 19).*

BAL Waterproof 1C will support a weight of tiling + adhesives + grout or up to **32kg/m²**.

Use adhesives suitable for the tile type and substrate. All BAL dispersion (ready-mixed) and cement-based adhesives are compatible with **BAL Tank-It** and **BAL Waterproof 1C**.

If a power shower is being installed, check that the chosen adhesive is suitable.

Grout: *If single-head showers (including power showers),* **BAL Grout Flex Grout**, **BAL Grout Flex Wide Joint Grout** and **BAL Micromax3 ECO** are suitable.

If multi-head shower and body jets, use **BAL Absolute Grout**.

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BAL Technical Advisory Service

The expertise behind the trusted BAL range of tiling adhesives and grouts is also always on hand to support professional fixers.

The **BAL Technical Advisory and Specification Service** handles approx 50,000 queries annually – providing FREE assistance, advice and specifications for all aspects of ceramic tiling installations.

In addition, a nationwide team of **BAL Training & Technical Support** are available to offer practical knowledge and on-site advice and training.

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