



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 300 x 300mm - or equivalent surface area of tile up to 0.09m² i.e. 450 x 200mm, 600 x 150mm), or porcelain tiles (up to 150 x 150mm - or equivalent surface area of tile up to 0.0225m²) and mosaics and some natural stone. (Not suitable for translucent/water sensitive in dry or wet interior environments.)
- For domestic and commercial internal wall 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).
- Metal
- Some non-porous tiles.
- Bedding depths exceeding 3mm.
- Plywood/timber walls

Not suitable for floors.

PRODUCT INFORMATION

Composition: Acrylic based organic dispersion with BAL Fibre Strand Technology (FST).

Colour: Brilliant 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.

Grout after: 24 hours (at 20°C)

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	6mm Notched	0.66m ² per litre
Wet Wall	6mm Notched (solid bed)	0.5m ² per litre

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

TEMPERATURE RESISTANCE**

-30°C to 70°C

** Cured adhesive.

SURFACE PREPARATION

General

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

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 wall 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

In domestic wet areas: waterproof background NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days at 20°C before grouting.

SUITABLE SURFACES include:

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 1 coat of

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

Allow primer to dry.

Weight restriction for tiling onto plaster is a maximum weight of 20kg/m².

NOTE: When primed, drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days at 20°C before grouting.

Plasterboard

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.

Weight restriction for tiling onto plasterboard is a maximum weight of 32kg/m². NOTE: To improve the weight restrictions use BAL BOARD (maximum 100kg/m²).

Clay Brickwork/dense concrete

Allow new block mortar to dry for minimum 6 weeks before rendering e.g. BAL QUICKSET RENDER or plastering

Lightweight blockwork/walling

Allow new block mortar to dry for minimum 6 weeks before rendering e.g. BAL QUICKSET RENDER, plastering or fixing BAL BOARD for internal areas (*see BAL TECHNICAL DATA SHEET on BAL BOARD for further information*).

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

BACKGROUNDS

Clay Brick/Medium Density Concrete Rendered (2) (5)	✓	Plaster (2)(3)	✓
Rendering (2)	✓	Plasterboard (3) (4)	✓
BAL BOARD/Tile Backer/Fibre Cement Boards (3)(4)(6)	✓	Unglazed Ceramic Tiles / Hard Natural Stone	✓
Glazed Tiles (6)	✓	Lightweight Blockwork with Render (2) (5)	✓
Painted Surface (6)	✓	Waterproof Backgrounds (6)	

USAGE & SERVICE CONDITIONS

Walls	✓	Floor	✗
Interior	✓	External	✗
Dry	✓	Wet Areas (a)(3)(6)	✓
		Showers (a)(3)(6)	✓
Swimming Pools	✗	Limited Movement/Vibration	✓

(1) Tiles must be grouted using BAL ABSOLUTE GROUT.

(2) Provided the surface is sufficiently flat.

(3) In wet conditions tank out with BAL TANK-IT or BAL WATERPROOF 1C (**porous tiles or porcelain to a maximum of 150mmx150mm only**).

(4) Check suitability for the intended purpose with the manufacturer or check BAL TECHNICAL DATA SHEETS on any BAL Products.

(5) Apply a cement: sand render e.g. BAL QUICKSET RENDER or a suitable tile backing board prior to tiling.

(6) Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days at 20°C before grouting.

(7) Porcelain tiles up to 300 x 300mm - or equivalent surface area of tile up to 0.09m² i.e. 450 x 200mm, 600 x 150mm), or porcelain tiles (up to 150 x 150mm - or equivalent surface area of tile up to 0.0225m²)

Note:

(a) Do not use shower for at least 2 weeks after completion of

TILE TYPES

Glazed Ceramic	✓	Mosaic – Ceramic	✓
Unglazed Ceramic	✓	Mosaic – Glass (3)	✓
Porcelain (7)	✓	Mosaic – Porcelain (3)	✓
Natural Stone – Translucent	✓	Mosaic – Stone	✓
Natural Stone – Non-Translucent/Non-Water sensitive	✓	Resin agglomerate Stone	✗

NOTE: When fixing with large format porcelain tiles (maximum edge length 600mm), The surface must NOT be

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 using suitable mechanical methods

Allow the following minimum drying times:

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

For BAL QUICKSET RENDER and BAL QUICKSET CEMENT: rendering please see the relevant Technical Datasheets

- Rendering (bonded): 4 hours**

Applying a 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 by volume to achieve desired consistency.*

Check BAL QUICKSET CEMENT and RENDER Technical Datasheet for drying and fixing times.

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 (See above)

NOTE: Drying times will be extended, i.e. leave adhesive to dry for a minimum of 3 days at 20°C before grouting.

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.

Do NOT seal or prime surface to be tiled.

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

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. It may be required to overboard the surface with a suitable tile backer board, such as BAL BOARD. Wet areas – remove paint and tank

APPLICATION/USAGE

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

If fixing larger format ceramic tiles onto a non-porous background (e.g. tiles), drying times will be extended.

For larger size tiles use a cementitious adhesive from the BAL range.

Trowel recommendations

Area	Trowel
Internal Dry Wall Area (up to 300x300mm tiles)	Max. 6mm Notched Trowel
Internal Wet Wall Area (up to 300x300mm tiles)	Max. 6mm Notched Solid Bed Trowel
Mosaics (up to 100x100mm tiles)	Min. 4mm Notched Trowel

NOTE: ensure you achieve the correct bed 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 ceramics (300 x 300mm - or equivalent surface area of tile up to 0.09m² i.e. 450 x 200mm, 600 x 150mm), /heavily-patterned tiles, apply additional adhesive to tile reverse (Apply a maximum of 3 mm thickness).

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. If skin has formed, remove adhesive and apply fresh layer).

4. Occasionally lift a mosaic/tile to check adhesive contact is min. 75% coverage for dry areas; min. 100% coverage for wet areas (i.e. leave no voids behind tiles).

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

6. Install movement joints in accordance with 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

NOTE: If tiling on an impervious background delay grouting for min. 3 days, to allow for extended setting time.

NOTE: Follow guidelines to BS Standards (minimum 2mm joints for walls, size can change depending on size of tile and environments), Contact BAL TECHNICAL ADVISORY AND SPECIFICATION SERVICE for more information.

2. Fill movement joints and seal around bath/shower trays with suitable sealant i.e. BAL MICROMAX SEALANT. 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: 03330 030160 or Email: info@building-adhesives.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. While products may be suitable for installations internally or externally, products when used externally are exempt from cover under the BAL 25 Year Guarantee. Terms and conditions apply. Full details are available for your review at www.bal-adhesives.com

CONDITIONS OF SALE

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

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

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