



# 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.

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

Longton Road, Trentham, Stoke-on-Trent, ST4 8JB, England  
[www.bal-adhesives.com](http://www.bal-adhesives.com)

## Sales

Tel: +44 (0) 1782 591160

Fax: +44 (0) 1782 591131

## Technical

Tel: +44 (0) 1782 591120 or

+44 (0) 845 600 1 222

Fax: +44 (0) 1782 591121

## Ireland

Unit 622, Phase III

Northwest Business Park

Ballycoolin, Dublin 15, Ireland

Tel: +353 (0) 1 880 9210

Fax: +353 (0) 1 880 9211

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

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