

BAUFLEX UNIVERSAL

Multi-purpose flexible tile adhesive for all types of substrates and application conditions. Ideal for large format tiles.

Description

High-performance, flexible, polymer-modified cement-based tile adhesive with high level of deformability, excellent adhesion to surfaces and high thixotropy. Ideal for fixing tiles on all types of surfaces (brick, concrete, render, and demanding substrates such as swimming pools, old tile layer, underfloor heating) and all types of tiles (ceramic, porcelain, vitrified tiles, mosaics and natural hard stone, marble, granite). Ideal for large-format tiles. For very demanding applications requiring resistance to cracking from thermal changes, frost and moisture.

Usage and Application examples

Walls
Floors
Worktops(1)
Interior
Exterior
Dry and wet environment
Showers
Swimming pools
Heated screeds

Substrates

Brick/Concrete(2)
Cement base mortars(2)
Plaster and Rendering(4)
Smooth prefabricated concrete
Lightweight blockwork(2) (3)
Cement and Plaster boards(2) (3) (4)
Fiber Cement(2)
Old layer of ceramic tiles(5)
Wooden Floor(6)
Hard Natural Stone(6)

(1) Tiles must be grouted using EPOGROUT

(2) Provided the surface is sufficiently flat.

(3) Prime with diluted 1:1 Superlat latex with water

(4) In wet conditions (e.g. in showers) tank out with ELASTOSIL or AQUASIL FLEX.

(5) Prime one layer of Supergrip 1:1 with water

(6) Only with use of uncoupling membrane

Note: Certain types of natural stone (i.e. limestone, thin marble, travertine and some granite) may be susceptible to water staining. In this case, use of a BAUER rapid-setting white adhesive is recommended

*Further applications possible by adding Superlat Latex to provide flexibility, increased adhesion and reduce water permeability.

Restrictions

Not suitable for timber, metal, painted surfaces, plastic or resilient materials, plywood walls or floors, tiling to existing glazed tiles.

Technical Specifications

Form: white dry powder

Dry mortar density: 1.4 Kg/L

Pot life: approximately 4 hours

Time for minor adjustments: up to 30 minutes

Open time: up to 30 minutes. Open time / minor adjustment time will be extended in colder temperatures, when fixing to impervious backgrounds or when fixing tiles of low porosity.

Consumption: 1,5-4,0 Kg/m² May vary dependent on nature and flatness of surface, and on trowel used.

Open time: ≥ 30 minutes

Slip: ≤ 0.5 mm

Application thickness: up to 20 mm

Deformability: ≥ 2 mm

Application temperature: +5 °C to +35 °C

Adhesion to concrete, 28 days: ≥ 1 N/mm².

Adhesion after heat ageing: ≥ 1 N/mm².

Adhesion after freeze-thaw cycles: ≥ 1 N/mm².

Adhesion after water immersion: ≥ 1 N/mm².

Ready to use: after 3 days.

Grouting on walls: after 4-6 hours.

Grouting on floors: after 24 hours.

Substrate surface preparation

Substrates must be in sound condition, flat, solid, rigid, durable, dry without rising damp and free from any factors that prevent adhesion such as dust, grease, etc

Remove any loose material using suitable mechanical method.

Cement base screeds, must be allowed to cure completely and not be affected by drying shrinkage and have moisture contact ≤0,2 CM-%

Anhydrite screeds must have moisture contact ≤0,5 CM-%

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.

MAXIMUM PERMISSIBLE DEVIATION from a 2m straight edge in direct contact with the surface for Class SR1=3mm. Class SR1 surfaces are recommended for direct fixing of tiles and slabs with a tile adhesive.

For substrates with deviations in height > 3mm and up to 20mm it is advised to use one layer of Hardox Flu 300 self-leveling floor.

Ensure flat, clean, dry surfaces, free from any shrinking tendencies. Remove any loose material or detaches fragments, dust, grease etc. Seal off and repair any major gaps. For surfaces in direct contact with the ground (eg. Basements), make sure that uprising damp is eliminated.

SUITABLE SUBSTRATES

Allow the following minimum drying times:

- Concrete/concrete block/clay brickwork: more than 4 weeks.
- Cement: sand screed more than 3 weeks.
- Cement: sand renderings more than 2 weeks.
- Plaster more than 4 weeks.
- Special screed mortars (e.g. Self-levelling floors): according to the manufacturer instructions.

Lightweight Blockwork

Allow new block mortar to dry for minimum of 4 weeks before rendering/plastering. If direct fixing tiles, wall must be smooth-faced and sufficiently flat (SR1)

Existing tiles.

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.

When fixing on existing tiles always prime with one layer of Supergrip.

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

Note: For further information on other substrates/surfaces and preparation contact the Technical Department of BAUER

Mixture preparation

1. The adhesive must be prepared in a suitable container, by first pouring the required quantity of water and then gradually adding the contents of the bag, whilst stirring with an electric mixer at low speed (under 300 rpm).
2. The mixture should be mixed until a uniform lump-free homogeneous mortar is achieved.
3. The mixture must be left to rest for about 2-3 minutes and then stirred slightly again.

Water required for wall applications approx. 7,5 L
Water required for floor applications approx 8,0 L

The quantity of water to be added, indicated on the packaging, is an approximate guide. It is possible to obtain mixtures with variable thixotropic consistency, according to the intended use. Adding much more water (>10%) than the prescribed ratio may result in reduction of the coating thickness during curing, and subsequently in a reduction of the strength of the mortar. Regular stirring (every 45-60 min) without adding water is recommended.

Note: The Pot life / setting time mentioned will vary slightly with the outside temperature. Higher temperature results in shorter; Lower temperature results in longer life and time.

Do NOT use in temperatures below 5°C or over 35°C.

Instructions for use

1. Apply the adhesive on the substrate using the appropriate notched metal trowel, according to needed bed thickness and comb to the required bed thickness, ensuring that the ribs of the adhesive all run in one direction and not in a circular pattern.

2. To ensure improved adhesion onto the substrate, first spread a thin coat of adhesive with the smooth side of the trowel and immediately apply the desired adhesive thickness with the notched edge of the trowel, depending on the type and size of the tile to be installed. If the back of the tiles is dusty, we recommend washing with clean water. Within 20-25 min, fix tiles one by one and press them to ensure firm contact.

3. The adhesive may be applied in a bed thickness of 2 - 6 mm thick or even up to 20 mm in limited localized areas. If fixing large/heavy-patterned tiles, apply additional adhesive on the tiles back side (back buttering method).

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

For mosaics installation: use a rubber tile float to press mosaics into the adhesive and beat into the required position.

To guarantee maximum adhesion it is necessary to apply a layer of adhesive sufficient to cover the entire back of the coating material.

Always check and clean the back of the tiles if dirty; we recommend washing with clean water.

5. Fix tiles/mosaics before the adhesive forms skin (typically more than 25 min at 20 °C, which greatly depends on the surface porosity and atmospheric conditions). In case skin has formed on the adhesive, remove the adhesive and apply a new fresh layer. Always discard any adhesive that has begun to set and never add further water.

It is always important before fixing the tiles, to ensure that the substrate is leveled (SR1) as per section "Surface Preparation" above. When using larger format tiles, it is essential that the substrate is as level as possible, ideally to better than SR1, as this will avoid excessive bedding out of adhesive and will reduce installation time.

In case of minor surface irregularities or if increased adhesive thickness is necessary for alignment, spread the surface with a layer of adhesive of the required thickness and another layer of adhesive in the back of the tile. Mount the tiles in place and press to ensure firm contact (at least 70%). For large tiles fixing outdoors and in areas with heavy traffic, apply the adhesive also on the back of the tile (back buttering method) to ensure 100% coverage.

Since open time under adverse weather conditions (sunlight, high temperatures, dry atmosphere etc) or on highly absorbent surfaces, can be reduced even to a few minutes, it is important to always check periodically with your fingers whether a membrane has formed on the surface of the adhesive. In such a

case, remove the dried part and add a quantity of fresh adhesive. If the surface is left for a prolonged period and corrections are necessary, remove the tile, clean the adhesive from the surface and remount in the proper position.

6. Occasionally lift a tile/mosaic to check adhesive's surface contact on back of the tile/mosaic. When using the solid-bed method, make sure to leave no voids behind the tiles.

7. Leave adequate joints between individual tiles. Create elastic expansion joints:
- ≈10 m² for outdoors applications
- ≈25 m² for indoors applications and
- every 8 m long, for long narrow applications.
Respect all structural, fractionizing and perimeter joints present in the substrate.

8. Clean off surplus adhesive from the tile face and between tile joints before the adhesive has dried, with water. After the adhesive has dried it will require mechanical methods to be removed.

General application guidelines

- Intended for Professional Use.
- Abide by any applicable Standard and National Regulations
- Do not use the adhesive to cover substrate anomalies greater than 15 mm.
- Environmental conditions, ventilation, substrate and application material absorbency are factors that may differentiate the adhesives' workability and curing time.
- Use a notched trowel suitable for the tile dimensions and required bed thickness.
- Guarantee a full-bed of adhesive without voids in all external applications.
- When applying tiles in gypsum & cement boards, always make sure that they are firmly fixed on the appropriate profile, prior to any tile installation. For underfloor heating applications, perform the required test heating cycles of the mortar prior to application according to standard EN 1264-4 clause 4.4.
- If necessary, ask for the safety data sheet.

Product Designation

It is classified as Improved deformable cementitious adhesive with reduced slip and extended open time **C2TE S1** in accordance to European standard EN 12004.

Consumption

1.5-4 Kg /m²

Storage

In sheltered areas, protected from moisture and sun exposure, for at least 12 months from the production date and in the original packaging.

Packages

Heavy duty paper bags, 23 kg each.

Precautions and safety

The product contains cement and is classified as an irritant. No special precautions are necessary for product application except for standard precautions applicable to all construction operations i.e. using gloves and goggles; preventing prolonged skin contact, etc. In case of eye contact, immediately wash with plenty of water and seek medical advice if necessary. Collect empty bags and plastic covers and dispose of in refuse bins designated for this purpose. Consult instructions for safe use indicated on product packaging. For more information please refer to the material safety data sheet of the specific product.

Notes

Technical data, properties, recommendations and information on BAUER products are supplied in good faith. They are based on the company's research and experience, provided that they are stored and applied under normal conditions. Given that in each case of application, the use of the materials and the conditions of the project as well as the overall environment, cannot be controlled by the company, the sole responsibility for the result lies with the end user of the product. No liability under any legal relationship can be established against the company, based on the information listed within this document. The present edition of this Technical Data Sheet automatically cancels any previous editions. The end user of the products should always refer to the latest Technical Data Sheet version that can be found in BAUER's official website.

Other information

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Qualitätsmanagementsystem

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