

NANOGEFLEX

Innovative lightweight elastic super-bonding tile adhesive with Gel technology, designed for all types of substrates and application conditions.

Description

High-performance, lightweight, flexible cementitious resin-based adhesive with Gel technology, featuring very low emissions of volatile organic compounds (VOC) and Low Dust technology for reduced dust during mixing.

It provides excellent adhesion to a wide range of substrates (concrete, cement screed, masonry, plasters, existing tile layers, gypsum boards, cementitious waterproofing, etc.), with a high deformation capacity for resistance to shear stresses, shrinkage and expansion, cracking, frost, and moisture.

Ideal for bonding all types of tiles (gres, porcelain, glass mosaics, marble-effect ceramic granite), as well as heavy natural stones, on walls and floors—even under particularly demanding conditions such as swimming pools and underfloor heating.

It guarantees high workability, zero vertical slip, extended open time, and full wetting of the tiles, providing top-level strength and long-lasting performance.

Advantages

Unique Gel Texture: Creamy, easy to spread, ensuring complete surface wetting and application in thick layers.

High Yield: Provides up to 60% more coverage per square meter per kilogram compared to conventional adhesives.

LOW DUST Technology: Generates no dust, improving cleanliness and safety on the jobsite.

High elasticity: Ensures the material's resistance to cracks and strong mechanical stresses, without the risk of detachment.

Excellent Adhesion: High deformation capacity to withstand cracking and intense shear stresses.

Extended Open Time: Allows greater speed and safety during installation.

Outstanding Resistance to Moisture and Frost: Ensures long-term durability and protection under demanding environmental conditions.

Environmentally Friendly: Contains a high percentage of recycled materials, reducing ecological footprint.

Thixotropic and Fluid: Offers flexibility in application, improving work quality and speed.

Development of Structural Adhesive Bonds: Ensures stability and durability of the bond between tiles and substrate.

Lightweight Packaging: Less weight for easier handling and reduced fatigue, available in 15 kg bags.

Areas of application

Walls
 Floors
 Worktops / Countertops
 Interior areas
 Exterior areas
 Dry and wet environments
 Bathrooms
 Swimming pools
 Underfloor heating systems

Substrates

Bricks (2)
 Concrete / Cement screeds (2)
 Renders / Plasters (4)
 Precast concrete
 Lightweight bricks / Aerated concrete blocks (2) (3)
 Cement boards / Gypsum boards (2) (3) (4)
 Fibre- cement boards (2)
 Existing ceramic tile coverings (5)
 Wooden floors (6)
 Natural stone (6)

(1) Tiles must be grouted with epoxy grout EpogROUT.

(2) Provided that the surface is sufficient level.

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

(4) In wet conditions (e.g. bathrooms) Elastosil, Aquasil Smart or Aquasil Flex.

(5) Prime with Supergrip diluted 1:1 with water, in a single coat.

(6) Only with the use of decoupling membrane DM/2.0.

* Further applications are possible with the addition of Superlat Latex in order to achieve greater flexibility, enhanced adhesion, and reduced water permeability.

Restrictions

Not suitable for metal substrates, painted surfaces, plywood walls, or moisture-sensitive natural stone.

Technical Characteristics

Form: White dry powder

Density of dry mortar: 1.1 Kg/L

Pot life: approx. 4 hours

Adjustment time: up to 30 minutes

Open time: up to 30 minutes (Open time / adjustment time is extended at lower

temperatures, when installing tiles on non-absorbent substrates, or when using low-absorbent tiles.)

Consumption: 1.5–4.0 Kg/m² (depending on substrate nature, surface flatness, and notched trowel used)

Slip: ≤ 0.5 mm

Layer thickness: up to 20 mm

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

Adhesion to concrete after 28 days: ≥ 1.0 N/mm²

Adhesion after heat exposure: ≥ 1.0 N/mm²

Adhesion after water immersion: ≥ 1.0 N/mm²

Adhesion after freeze–thaw cycles: ≥ 1.0 N/mm²

Ready for use: after 3 days

Grouting on walls: after 4–6 hours

Grouting on floors: after 24 hours

Surface preparation

Substrates must be flat, solid, rigid, durable, and completely dry, with no rising moisture, and free from any substances that could affect adhesion, such as oils, dust, or other contaminants.

In the presence of loose or weak materials, these must be completely removed using appropriate mechanical cleaning methods.

Cementitious substrates must be fully cured, free from shrinkage cracks, and have a residual moisture content ≤ 2% CM.

Regarding flatness, the maximum allowable deviation over a 2-meter straightedge is 3 mm for SR1-type surfaces, which are recommended for direct tile installation with cementitious adhesives.

For irregularities between 3 and 20 mm, the application of a self-leveling compound, Hardox Flu 300, is recommended to correct surface deviations. Ensure surfaces are stable, dry, and free from shrinkage stresses. Remove all detached or worn areas, oils, dust, etc. Large gaps or cracks should be sealed and repaired.

Suitable substrates

Minimum Curing Times:

- Concrete and brick masonry: more than 4 weeks.
- Cement screeds: more than 3 weeks.
- Cement-based plasters: more than 2 weeks.
- Renders: more than 4 weeks.
- Special floor screeds (e.g., self-leveling compounds): according to the manufacturer's instructions.

Lightweight bricks / Aerated concrete blocks

Allow masonry mortar to cure and fully dry for at least four weeks before applying plaster.

If tiles are to be installed immediately, the wall must be smooth, stable, and sufficiently level, preferably of SR1 flatness class, according to standards.

Existing Tiles

Walls: Ensure that existing tiles or stone are firmly bonded and supported by a substrate capable of carrying the weight of the new tiles.

Floors: Verify that already installed tiles have good adhesion to the substrate.

In all cases of application over existing tile installations, apply a Supergrip primer first for optimal adhesion.

Carefully remove any varnishes, waxes, grease, or other contaminants using a suitable cleaner to ensure excellent bonding conditions.

NOTE: For more information regarding other substrates and surface preparation, contact the BAUER Technical Department.

Mixture preparation

1. In a suitable container, first pour the required amount of clean water.
2. Gradually add the contents of the bag while mixing with a low-speed electric stirrer (approx. 300 rpm).
3. Continue mixing until a homogeneous, lump-free mixture is obtained.
4. Allow the mixture to rest for 2–3 minutes.
5. Remix briefly before application.

Required water quantity: approx. 7.2–7.5 L per bag. The water demand is indicative and can be adjusted to achieve the desired thixotropic consistency, depending on the application.

Important: Adding more than 10% additional water beyond the recommended amount may lead to reduced layer thickness and consequently lower mortar strength.

It is recommended to remix every 45–60 minutes without adding extra water.

The open time and pot life of the mixture depend on ambient temperature.

High temperatures shorten working time, while low temperatures extend it.

Do not apply at temperatures below +5 °C or above +30 °C.

Instructions for use:

Apply the adhesive onto the substrate using a suitable notched trowel, depending on the required thickness. Spread in straight parallel ribs in one direction (not circular).

For improved adhesion, first apply a thin contact layer with the smooth side of the trowel, then comb the adhesive with the notched side to the desired thickness, according to the tile type and size.

If tiles have a dusty back surface, rinse them with clean water before installation.

Place tiles within 20–25 minutes and press firmly into position.

For large-format or heavy tiles, apply adhesive also to the back of the tile (back buttering).

During installation, press the tiles with slight sliding/twisting movements to ensure full bedding and proper wetting.

For mosaics, use a rubber trowel and ensure the back surface is clean.

Place tiles before a surface skin forms on the adhesive (approx. 25 minutes at 20 °C). If a film has formed, remove it and apply fresh adhesive.

Do not add water to material that has already begun to set.

Randomly lift tiles during installation to check proper coverage: at least 70% bonding area ($\geq 100\%$ in demanding applications with double spreading).

Movement Joints

Provide elastic expansion joints at regular intervals:

Every 10 m² in external areas

Every 25 m² in internal areas

Every 8 m for elongated surfaces

Always maintain structural and perimeter joints.

Cleaning

Clean excess adhesive immediately from tile surfaces and joints before it hardens. Once cured, removal is only possible by mechanical means.

General Notes

Product intended for professional use only.

Follow relevant standards and regulations.

Factors such as temperature, ventilation, and substrate absorbency affect workability and curing.

Always use the correct trowel notch size for the tile or slab.

Ensure full and uniform adhesive coverage beneath tiles (complete wetting).

Safety Data Sheet (SDS) available upon request.

Product Designation

Classified as C2TE S1 adhesive, in accordance with EN 12004 (high-performance, extended open time, reduced slip, deformable).

Consumption

Approx. 1.1 Kg/m², depending on substrate condition, tile format and trowel notch size.

Storage

Store in dry, shaded areas, preferably under cover and protected from direct sunlight.

Shelf life: **12 months** from production date, in original unopened packaging.

Packaging

Supplied in 15 kg high-strength paper bags.

Health & Safety

The product contains cement and is classified as irritant.

No special precautions are required beyond standard construction site safety measures:

Wear protective gloves and goggles.

Avoid prolonged skin contact.

In case of eye contact, rinse immediately with plenty of water and seek medical advice if necessary.

Collect and dispose of empty bags and plastic covers in designated waste containers.

Always consult the safety instructions printed on the packaging.

For further details, refer to the Material Safety Data Sheet (MSDS).

Notes

No liability is accepted for any loss or damage resulting from incorrect use of the products or poor workmanship, over which BAUER has no control. Technical data, properties, recommendations, and product information are provided in good faith, based on the company's research and experience, and assuming normal storage and application conditions. Since BAUER cannot control the conditions of use, site practices, or environmental factors in specific applications, the user is solely responsible for the results.

Other information

BAUER BUILDING TECHNOLOGIES

ΒΙ.Π.Ε. Μεγάρων, Αττικής

Tel: 210 5744222

Fax: 210 5740777

Email: info@netbauer.com

[http:// www.netbauer.com](http://www.netbauer.com)

Frankfurt, Reg. No 312310 QM and No 312310 UM
Qualitätsmanagementsystem
Zertifiziert nach DIN EN ISO 9001

