

Torggler

Tiles and Natural Stone Installation

T 50

Cementitious adhesive for laying absorbent ceramic tiles, indoors and outdoors. Suitable for single-fired and double-fired ceramic materials and aerated concrete materials. It can also be used as thin-layer masonry mortar.



- Extended open time
- For bathrooms and kitchens
- For indoor and outdoor use



APPLICATION AREAS

- Bonding to walls and floors, indoors and outdoors, of single-fired and double-fired ceramic tiles and ceramic mosaic on the most varied types of cement-based substrates, provided they are cured and dry: concrete walls, walls made of cement-based plaster or of cementlime mortar, indoor walls made of cellular concrete blocks, cement-based screeds.
- Laying of aerated concrete elements (gasbeton).
- Indoor and outdoor bonding of ceramic coverings of swimming pools and tanks, if mixed with Flex (see the relevant technical data sheet).
- Indoor and outdoor bonding to the wall and floor of porcelain stoneware and glazed stoneware of medium and large size, and of natural stone also of large format, if mixed with Flex (see the relevant technical data sheet).
- For applications on gypsum or anhydrite surfaces a surface pre-treatment with Tile Primer is required. In case of doubt, contact our Technical Department for this type of application.

FEATURES

T 50 is a powder cement-based adhesive based on highstrength cements, selected aggregates, synthetic resins and specific additives. Once mixed with water it creates a glue with excellent workability, good thixotropy and high adhesiveness on all types of cement substrates. Applied vertically it does not drip and does not let the tiles slip. It is resistant to frost-thaw cycles. T 50 is classified as class C1E cement-based adhesive according to EN 12004.

INSTRUCTIONS FOR USE

Preparation for use

Substrates to be covered must be sufficiently dry, solid and regular, clean and sound, free of oil and grease, dust, crumbly material and dirt in general, and free of residues of paint film, and must be suitably cured and free of significant shrinkage. Indicatively, traditional cement-based screeds with normal setting and hardening must be cured for at least 28 days; cement-based or cement-lime mortar based plasters must dry for at least 14 days. Large imperfections and surface irregularities such as unevenness, cavities, gravel nests, eroded or deteriorated points, must be previously repaired and uniformed with self-levelling smoothing, for example Livellina 0-10, or with a specific skimming product, such as Multimix EVO or Rinnova. Particularly porous and crumbling substrates must be previously consolidated with Tile Primer.

Product preparation

As cement-based adhesive mix T 50 with 26-28% (equal to 6.5-7.0 litres per 25 kg bag) of clean water until a smooth, lump-free mixture is obtained. For rectified blocks thinlayer mortar laying, mix with 33-35% (equal to 8.25-8.75 litres per 25 kg bag) of clean water until a homogeneous, slightly fluid, lump-free mass is obtained. It is recommended to prepare the mixture in the following way: in a special container pour almost all the necessary mixture water, then add the powder product slowly, stirring at the same time while the mixture is forming using a lowspeed drill with a specific propeller. Once all the powder has been added, pour in the remaining water and stir until the mixture is homogeneous and free of lumps, taking particular care to remove lumps of unmixed material from the walls and bottom of the container. Allow to stand for approx. 5 minutes, then mix briefly. The adhesive thus prepared remains workable in the mixing container for about 4 hours under normal conditions (at 20 °C).

TECHNICAL SPECIFICATIONS

| POWDER PRODUCT VARIATIONS | WHITE | GREY |
|--|--|--|
| Consistency | Powder | Powder |
| Apparent density | 1,3 kg/l | 1,3 kg/l |
| Particle size | 0 – 0,5 mm | 0 – 0,5 mm |
| FRESH MIXTURE VARIATIONS | | |
| Mixing water | 26-28 % (as cement-based adhesive) 33-35 % (as thin-layer mortar laying) | 26-28 % (as cement-based adhesive) 33-35 % (as thin-layer mortar laying) |
| Mixture density | 1,5 kg/l (as cement-based adhesive) 1,7 kg/l (as thin-layer mortar laying) | 1,5 kg/l (as cement-based adhesive) 1,7 kg/l (as thin-layer mortar laying) |
| Mixture consistency | pasty – workable with trowel (as cement-based adhesive) fluid (as a thin-layer mortar laying) | pasty – workable with trowel (as cement-based adhesive) fluid (as a thin-layer mortar laying) |
| Chloride content (EN 1015-17) | <0,01 % (as a thin-layer mortar laying) | <0,01 % (as a thin-layer mortar laying) |
| Correction time (at +20°C) | approx. 4 hours | approx. 4 hours |
| Open time (EN 1346) | > 30 minutes | > 30 minutes |
| Recording time (DIN 18156 Teil 2) | 30 minutes | 30 minutes |
| Application temperature | from +5 °C to +35 °C | from +5 °C to +35 °C |
| HARDENED PRODUCT FOR TILES LAYING VARIATIONS | | |

| | | |
|---|------------------------|------------------------|
| Adhesion by traction (EN 1338): initial adhesion | 1,1 N/mm ² | 1,3 N/mm ² |
| Adhesion by traction (EN 1338): adhesion after water immersion | 0,7 N/mm ² | 0,8 N/mm ² |
| Adhesion by traction (EN 1338): adhesion after heat ageing | 0,8 N/mm ² | 0,9 N/mm ² |
| Adhesion by traction (EN 1338): adhesion after freeze-thaw cycles | 0,7 N/mm ² | 0,8 N/mm ² |
| Joints filling: on the wall | after approx. 8 hours | after approx. 8 hours |
| Joints filling: on the floor | after approx. 24 hours | after approx. 24 hours |
| Can be walked on | after 24 hours | after 24 hours |
| Final hardening | after 14 days | after 14 days |
| Operating temperature | from -30 °C to +90 °C | from -30 °C to +90 °C |
| HARDENED PRODUCT FOR BLOCKS LAYING VARIATIONS | | |
| Compressive strength (EN 1015-11) | > 10 N/mm ² | > 10 N/mm ² |
| Adhesion to the substrate (EN 1015-12) | 1 N/mm ² | 1 N/mm ² |
| Initial shear strength (EN 1052-3) | 0,3 N/mm ² | 0,3 N/mm ² |
| Capillary absorption (EN 1015-18) | class W1 | class W1 |
| Permeability to water vapour coefficient - μ (EN 1015-19) | 5/20 | 5/20 |
| Thermal conductivity (λ10, dry) (EN 1745-12) - W/m*K | 0,47 (P=50%) | 0,47 (P=50%) |
| Reaction to fire class (EN 13501-1) | A1 | A1 |

| | |
|----------------|-------------|
| Color | Grey, White |
| Packaging | bag |
| Packaging size | 25 kg |
| Pallet | 50 bags |

CONSUMPTION

Consumption depends on the type of tiles, the characteristics of the substrate and the laying method, and can vary from 3 to 8 kg/m². Indicatively, if the substrate has been well prepared and uniformed, for mosaic and small size tiles the consumption is about 2 kg/m², for medium and large size tiles (up to about 33x33 cm) the consumption is about 3 kg/m², while for large tiles with marked profiling and for outdoor applications the consumption is about 8 kg/m². For the laying of bricks/blocks approx. 6-7 kg/m² of surface to be bonded, indicatively equal to 1 bag of 25 kg for m³ of masonry laid.

STORAGE

Store T 50 in a dry and sheltered place. In the original closed bags it is kept for at least 12 months. PROTECT FROM HUMIDITY.



The information contained in this document is reported on the basis of our experience and knowledge; therefore, any recommendations and suggestions made are without any guarantee and must be verified before using the product by those who intend to use it, who assume all responsibility that may result from its use since the conditions of use are not under our direct control. In case of doubt, it is always advisable to make preliminary tests and/or ask for the intervention of our technicians. Torggler reserves the right to modify, replace and/or delete the items, as well as to change the product data in this document without prior notice; in this case the indications given here may no longer be valid. Always refer to the latest version of the data sheet, available at www.torggler.com. Version 29.06.2021.