

Torggler

Tiles and Natural Stone Installation

TILE 250

Improved, single-component, cementitious tile adhesive, type C2 TE according to EN 12004, antislip and flexible, for gluing porcelain or glazed tiles of medium size. Can be used indoors and outdoors, on walls and floors. Frost resistant.



- Extended open time
- High adhesion
- Anti-slip
- Suitable for porcelain or glazed tiles of medium size
- Gluing ceramic wall and floor tiles indoors and outdoors
- Gluing of ceramic tiles on stable substrates of limited size



TYPES OF SUBSTRATE

- Cured cement screeds
- Concrete walls
- Cement or cement-lime plasters
- Indoor walls made from cellular concrete blocks
- Surfaces, plasters and panels based on gypsum, if previously treated with Piastrellite Primer
- Medium-sized substrates waterproofed with flexibilized cement systems such as Antol Flex 1K and Antol Flexistar
- For heating floors

TYPE OF MATERIAL TO BE LAID

- Single-fired
- Double-fired
- Clinker
- Porcelain and glazed stoneware tiles of small and medium size (max 40×40)

MAXIMUM ATTAINABLE THICKNESSES

10 mm

FEATURES

Tile 250 is a cementitious tile adhesive, available in white and grey, based on high resistance cements, selected aggregates, synthetic resins and specific additives. After mixing with water, you have an adhesive which is easy to use, with excellent thixotropy, medium flexibility and high adhesiveness, for all types of cement substrates. When applied on walls, it does not run and prevents wall tiles from slipping. Thanks to its long open time, laying tiles is easy even in warm, windy climates. It resists freezing/thawing cycles. Classified as a cementitious tile adhesive of class C2 TE according to EN 12004.

WARNINGS

Do not use on the following:

- Wood and wood conglomerates, metal surfaces, rubber, PVC, linoleum and the like.
- Unstable substrates subject to deformation and high mechanical stress. For applications on gypsum or anhydrite surfaces, pre-treatment of the surface with Piastrellite Primer is required.

If you have any doubts or queries about this type of application, contact our Technical Office.

INSTRUCTIONS FOR USE

Preparation

The surfaces to be covered must be suitably dry, resistant, solid and regular, clean and free of oils and greases, dust, loose material, dirt of any kind and any traces of old paint. The surfaces must also be sufficiently cured and free of significant shrinkage. As a general rule, traditional cement bedding with normal setting and hardening must be cured for at least 28 days. Cement or cement lime plasters must be dried for at least 14 days. Major surface imperfections and irregularities such as level differences, cavities, gravel pockets and eroded or deteriorated points must be repaired in advance and filled out with a self-levelling smoothing product such as Livellina 0-10 or Livellina 5-30, or with a suitable mortar such as Restauro, Rinnova or Monorasante. Very porous, flaking or dusting surfaces with poor mechanical strength must be consolidated in advance with Piastrellite Primer.

Mixing the product

Mix Tile 250 with 26-28% clean water (6.5-7.0 litres per 25 kg bag) as follows: pour almost all the mixing water required in a suitable container. Then add the powder product, slowly, and mix at the same time using a low speed electrical drill with mixer attachment. Once you have added all the powder product, pour in the rest of the water and mix until the product is smooth and lump-free, with a semifluid consistency. Make sure you remove all non-mixed lumps of material from the walls and the bottom of the container. Allow the mixture to stand for about 5 minutes and then mix again briefly. The adhesive mix prepared in this way has a pot life in the container of about 5 hours under normal conditions (at 20 °C). Higher temperatures reduce the pot life, lower temperatures increase it. If subject to direct sunlight, that is, high temperatures, wet the surface with a sponge to cool it and then wait until all the surface water has evaporated.

Application

Apply the adhesive with an appropriate toothed trowel. The size of the trowel teeth depends on the type and size of the tile to be glued: total coverage of the back of the tiles must be guaranteed. For better adhesion, first apply a thin and uniform layer of adhesive on the surface using the smooth part of the toothed trowel and then apply, immediately, a second layer of the thickness required using the toothed part of the trowel. Apply the tiles, pressing them slightly and moving them crossways slightly. When gluing tiles bigger than 33x33 cm with marked relief pattern on the back, for outdoor applications, especially in areas subject to major heat changes or freezing/thawing cycles, follow the "butteringfloating" technique: that is to say, apply the mixed adhesive with the toothed trowel to the surface and spread it out using a trowel on the back of the tile, smoothing off as required. Provided the quantity of adhesive spread out is sufficient, you now have adhesive-tile contact extended along the entire gluing surface (this condition is essential for laying floors and surfaces exposed to freezing cycles and considerable stress from water). Only lay the tiles within the time interval during which the adhesive spread out is still fresh and sticky, that is, before a surface film forms. This time interval is known as the "open time" of the

adhesive and depends on the environmental conditions. The open time of Tile 250 is longer than 30 minutes at 23 °C and 50% relative humidity. High temperatures and conditions of direct sunlight and wind or very porous and absorbent surfaces may reduce the open time considerably. Low temperatures, high environmental humidity and non-absorbent surfaces may increase the open time. If the open time has passed and the adhesive spread out has formed a surface film, you must use the toothed trowel again to break the film and “freshen up” the surface. Do NOT wet the surface as this would create a film of anti-adhesive water which would prevent contact of the tiles with the adhesive and the entire operation would be compromised definitively. The tiles do not normally require wetting before laying. However, tiles with dusty back should be cleaned by dipping them in clean water for a few seconds. For gypsum surfaces, pre-treatment with Piastrellite Primer is required.

WAITING TIMES

After laying, protect the tiles against rain and scouring for at least 24 hours and against direct sunlight for at least 7 days. If laying in the winter, protect against frost for at least 7 days.

You may grout the gaps between tiles after about 8 hours for walls and about 24 hours for floors, using Tile Grout ≤8 mm or Tile Grout 2-15 mm. NOTE: Expansion joints should be sealed with a silicone sealant of Torggler. Laid floor tiles can be walked on after about 24 hours. The final hardening and, therefore, the actual use of floor and wall coverings glued with Tile 250 requires about 14 days. The tools used for laying may be cleaned with water before the adhesive hardens. Once the adhesive has hardened, you may only clean them using mechanical instruments. Any dirt on the surface of the tiles must be cleaned before the adhesive hardens using a damp cloth. Do not apply the product at temperatures below +5 °C or above +35 °C. Do not mix the product with other binders such as cement, hydraulic lime, gypsum, etc. The mix cannot be diluted with water once it has started setting. Do not use the mixed product when it has already started to set. Therefore, always prepare quantities of mix which can be used within the pot life.

TECHNICAL SPECIFICATIONS

MEASURED ON POWDER PRODUCT		
Colour	white	grey
Consistency	powder	powder
Apparent water	1,30 kg/litre	1,30 kg/litre
Grain size	0 – 0,5 mm	0 – 0,5 mm
MEASURED ON FRESH MIX		
Mixing water	26-28 % equivalent to 6,5-7,0 litres per 25 kg bag	26-28 % equivalent to 6,5-7,0 litres per 25 kg bag
Mix density	1,55 kg/litre	1,55 kg/litre
Mix consistency	pastry – can be trowelled	pastry – can be trowelled
Slip (to EN 1308)	< 0,5 mm	< 0,5 mm
Mix pot life (at +23 °C)	approx. 5 hours	approx. 5 hours
Open time (to EN 1346)	> 30 minutes	> 30 minutes
Adjustment time (to DIN 18156 Part 2)	20 minutes	20 minutes
Application temperature	from +5 °C to +35 °C	from +5 °C to +35 °C
MEASURED ON HARDENED PRODUCT		
Adhesion by traction (according to EN 1348): initial adhesion	> 1,2 N/mm ²	> 1,4 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after immersion in water	> 1,0 N/mm ²	> 1,0 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after action of heat	> 1,1 N/mm ²	> 1,1 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after freezing/thawing cycles	> 1,1 N/mm ²	> 1,1 N/mm ²

Filling the joints: walls	after approx. 8 hours	after approx. 8 hours
Filling the joints: floors	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
Consumption	from 2,0 to 5,0 kg/m ²	from 2,0 to 5,0 kg/m ²
Max attainable thickness	10 mm	10 mm
Classification as per EN 12004	C2 TE	C2 TE

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

CONSUMPTION

Consumption may vary from 2 to 5 kg/m². It depends on the type of tile, the characteristics of the substrate and the laying method used. As a general rule, if the surface has been well prepared and levelled off, for small tiles, the consumption is about 2 kg/m², for tiles up to 33x33 cm, the consumption is about 3 kg/m², and for tiles up to 40x40 cm with marked relief pattern on the back and for outdoor applications (using the "butteringfloating" method) the consumption is about 5 kg/m².

STORAGE

Tile 250 must be stored in a dry and protected place. Unopened in its original bags, the product can be stored for at least 12 months. KEEP AWAY FROM MOISTURE.

CERTIFICATIONS

The EC Declaration of Conformity is available on request.

LEGEND OF CLASSIFICATION ACCORDING TO EN 12004	
C1	Normal cementitious adhesive
C2	Improved cementitious adhesive
F	Fast setting
T	Reduced slip
E	Extended open time
S1	Deformable
S2	Highly deformable

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 25.06.2021.