

Torggler

Tiles and Natural Stone Installation

TILE 600

Single-component, adhesive cement powder, type C2 FE to EN 12004, quick setting and hardening, flexible and high strength, for gluing over old tiles or surfaces. For indoor and outdoor applications. For ceramic wall and floor tiles of all types. Frost resistant.



- Designed specifically for overlaying
- Quick setting and hardening
- Rapid usability
- Very short wait time for grouting
- Long open time



APPLICATION AREAS

- For gluing ceramic wall and floor tiles, indoors and outdoors, over old flooring, old ceramic tiles and old coverings.
- For laying applications where a rapid return to service is required. Schools, hospitals, shopping precincts, industrial environments, shops and public buildings.
- Rapid repairs of ceramic flooring in factories, workshops, terraces, balconies, bathrooms, stairs and corridors.

TYPES OF SUBSTRATE

- Existing wall and floor tiles
- Cured concrete castings
- Cured cement screeds
- Concrete walls
- Cement or cement-lime plasters
- Indoor walls made from cellular concrete blocks

TYPE OF MATERIAL TO BE LAID

- Single-fired
- Double-fired
- Clinker
- Porcelain and glazed stoneware tiles, medium size (max 33 x 33 cm)
- Natural stone, resin and composite tiles (provided that these are not sensitive to water or subject to staining or deformation)

MAXIMUM ATTAINABLE THICKNESSES

10 mm

FEATURES

Tile 600 is a grey adhesive cement powder consisting of a special mixture of rapid setting/hardening, high-resistant cement, graded aggregates. The mixture is a special formula designed for overlaying. After mixing with water, you have an easy-to-work adhesive mix with good flexibility and excellent adhesion suitable for all types of substrate, especially old floors and ceramic tiled surfaces or surfaces covered in natural stone. Thus, under normal hardening conditions, mechanical strength develops quickly and floors can be walked on about 4 hours after laying. Thanks to its long open time, laying tiles is easy even in warm, windy climates. It resists freezing/thawing cycles. Tile 600 is classified as a cementitious adhesive of class C2 FE as per EN 12004 standard.

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 ACS Restauro, ACS Rinnova or ACS Monorasante. Very porous, flaking or dusting surfaces with poor mechanical strength must be treated in advance with Piastrellite Prime.

Mixing the product

Mix Tile 600 with 28-30% clean water (7.0-7.5 litres per 25 Kg bag) as follows: pour almost all the mixing water required into 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. Make sure you remove all unmixed lumps of material from the sides 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 45 minutes under normal conditions (at 20 °C). Higher temperatures reduce the pot life, lower temperatures increase it.

Application

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. 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. Use the buttering-floating method to apply tiles with a high relief pattern on the back in case of outdoor applications, especially in areas subject to wide variations in temperature or freezing/thawing cycles. Proceed as follows. Apply the mixed adhesive with a toothed trowel to the substrate. Also spread a layer of adhesive with a trowel on the back of the tile and smooth it off so that it is flush with the relief pattern. 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 600 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 will create a film of water which prevents adhesion between the tile and the adhesive. 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 4 hours and against direct sunlight for at least 24 hours. If laying in the winter, protect against frost for at least 24 hours. You can grout the gaps between the tiles after approx. 4 hours with Tile Grout ≤8 mm or Tile Grout 2-15 mm. Note: Expansion joints should be sealed with a silicone sealant in the Torggler Sitol Silicon range. Laid floor tiles can be walked on after about 4 hours. Final hardening takes approx. 24 hours. Wait 24 hours before using floor and wall coverings glued with Tile 600. 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 +30 °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	grey
Consistency	powder
Apparent density	1,20 kg/litre
Grain size	0 – 0,5 mm
MEASURED ON FRESH MIX	
Mixing water	28 – 30% equivalent to 7,0 – 7,5 litres per 25 kg bag
Mix density	1,40 kg/litre
Mix consistency	pastry – can be trowelled
Mix pot life (at +20 °C)	approx. 50 minutes
Open time (to EN 1346)	> 30 minutes
Adjustment time (to DIN 18156 – Part 2)	approx. 40 minutes
Setting times: start of setting	120 minutes
Setting times: end of setting	190 minutes
Application temperature	from +5 °C to +35 °C
MEASURED ON HARDENED PRODUCT	

Adhesion by traction (according to EN 1348): advanced adhesion (after 6 hours)	> 0,5 N/mm ²
Adhesion by traction (according to EN 1348): initial adhesion	1,7 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after immersion in water	1,0 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after action of heat	1,2 N/mm ²
Adhesion by traction (according to EN 1348): adhesive strength after freezing/thawing cycles	1,0 N/mm ²
Filling the joints	after 4 hours
Can be walked on	after 4 hours
Final hardening	after 24 hours
Application temperature	from -30 °C to +90 °C
Consumption	from 2,0 to 5,0 kg/m ²
Max attainable thickness	10 mm
Classification as per EN 12004	C2 FE
Packaging	bag
Pallet	50 bags
Packaging size	25 kg
Color	Grey

CONSUMPTION

Consumption varies from 2 to 5 kg/m².

Actual consumption depends on the type of tile, the characteristics of the substrate and the laying method used. As a general rule consumption on well prepared, levelled surfaces is as follows. Mosaic and small tiles: approx. 2 kg/m². Standard and medium sized tiles (up to 33 x 33 cm): approx. 3 kg/m². Large tiles with high-profile back and tiles for outdoor applications (using buttering-floating): approx. 5 kg/m².

STORAGE

Tile 600 must be stored in a dry and protected place. Unopened in its original bags, the product can be stored for at least 6 months. KEEP AWAY FROM MOISTURE.

CERTIFICATIONS

Product certified by A. E. C.C. – Agenzia Europea Certificazioni Costruzioni di Sassuolo (Modena) Notified Body No. 1596. Product certified by Istituto Giordano of Bellaria (Rimini) Notified Body No. 0407. Test Certificates No. AECC 0021/2006, No. AECC 0036/2006, Nos. 203772/ 434/CPD, 203770/432/CPD, 203767, and by Istituto Elletipi S.r.l. (FE), Notified Body No. 1308, Test Certificate No. 17970/12. The EC Declaration of Conformity, including copies of official test reports, 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 23.06.2021.