

# Torggler

## Tiles and Natural Stone Installation

# TILE 700

Improved one-component cementitious adhesive type C2 E S1 according to EN 12004, quick setting and hardening, highly flexible and high strength, for gluing wall, floor and paving slabs or blocks of marble or natural stone and ceramic tiles of all kinds. Can be used indoors and outdoors. Frost resistant.



- For marble and natural stone
- Deformable
- Quick setting and hardening
- Floors laid ready for use almost immediately
- Does not cause blooming or rings
- Longer open time



### APPLICATION AREAS

- Gluing indoor and outdoor floor and wall coverings of marble, natural or artificial stone or composite materials
- Gluing on substrates subject to movement such as balconies, terraces, swimming pools and tanks
- Gluing of ceramic floors subject to high mechanical stress
- Can be used over old ceramic floor and wall coverings

### TYPES OF SUBSTRATE

- Cured cement screeds
- Concrete walls
- Cement or cement-lime plasters
- Substrates waterproofed with flexibilized cement systems such as Antol Flexistar, Antol Flex 1K and Antol Flex 2K or a waterproofing membrane like Sitol Aquatech
- Heated floors
- Indoor walls made from cellular concrete blocks

## TYPE OF MATERIAL TO BE LAID

- Marble, natural and artificial stone, resin and composite tiles
- Single-fired
- Double-fired
- Clinker
- Vitreous ceramic mosaic\*
- Porcelain and glazed stoneware

\* when mixed with one part Antol Flex and one part water.

## MAXIMUM ATTAINABLE THICKNESSES

15 mm

## FEATURES

Tile 700 is a white cementitious adhesive based on a mixture of special, high-resistance, quick setting and hardening hydraulic binders, selected aggregates, and a high percentage of synthetic resins and specific additives, especially formulated for gluing marble, natural and artificial stone, resin and composite tiles. After mixing with water, you have an easy-to-work adhesive mix with high flexibility and excellent adhesiveness on substrates of all kinds, including old floors and walls covered with ceramic or natural stone tiles. Since the adhesive sets rapidly and, above all, hydrates rapidly it prevents the formation of rings on the surface of slabs and tiles of marble or natural stone and enable floors laid to be used almost immediately. 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. The high deformability of the hardened adhesive enables it to absorb the movements of the substrate, making it ideal for flooring subject to high stress. It resists freezing/thawing cycles.

Tile 700 is classified as a cementitious adhesive of class C2 E S1 according to EN 12004.

## WARNINGS

Do not use on the following: wood and wood conglomerates, metal surfaces, rubber, PVC, linoleum and the like. 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, please do not hesitate to 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. Substrates subject to rising damp must be waterproof treated. 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 Primer.

### Mixing the product

Mix Tile 700 with 24-26% clean water (6.0-6.5 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 60 minutes 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 or slabs of marble or natural or artificial stone by pressing lightly and moving them crossways slightly. When gluing tiles with marked relief pattern on the back, for outdoor applications, especially in areas subject to major heat changes or freezing/thawing cycles and for laying large tiles (more than 33x33 cm), follow the "buttering-floating" 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). The tiles and marble or natural stone slabs must be laid only 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 700 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 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 may fill the gaps between the tiles after about 4 hours with Tile Grout ≤8 mm or Tile Grout 2-15 mm or with a white grout. 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. The final hardening and, therefore, the actual use of floor and wall coverings glued with Tile 700 requires about 24 hours. 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	white
Consistency	powder
Apparent density	1,30 kg/litre
Grain size	0 – 0,8 mm
MEASURED ON FRESH MIX	
Mixing water	24 – 26%, equivalent to 6,0 – 6,5 litres per 25 kg bag
Mix density	1,43 kg/litre
Mix consistency	pastry – can be trowelled
Mix pot life (at +20 °C)	about 60 minutes
Open time (to EN 1346)	> 30 minutes
Adjustment time (to DIN 18156 Part 2)	approx. 45 minutes
Setting time: start of setting	170 minutes
Setting time: end of setting	220 minutes

Application temperature	from +5 °C to +30 °C
<b>MEASURED ON HARDENED PRODUCT</b>	
Adhesion by traction (according to EN 1348): initial adhesion	> 1,8 N/mm <sup>2</sup>
Adhesion by traction (according to EN 1348): adhesive strength after immersion in water	> 1,4 N/mm <sup>2</sup>
Adhesion by traction (according to EN 1348): adhesive strength after action of heat	> 1,8 N/mm <sup>2</sup>
Adhesion by traction (according to EN 1348): adhesive strength after freezing/thawing cycles	> 1,5 N/mm <sup>2</sup>
Crossways deformation (according to EN 12002)	3,3 mm
Filling the joints	after 4 hours
Can be walked on	after 4 hours
Final hardening	after 24 hours
Operating temperature	from -30 °C to +90 °C
Consumption	from 3,0 to 8,0 kg/m <sup>2</sup>
Max attainable thickness	15 mm
Classification according to EN 12004	C2 E S1

Packaging	bag
Pallet	50 bags
Color	White
Packaging size	25 kg

## CONSUMPTION

Consumption may vary from 3 a 8 kg/m<sup>2</sup>. It depends on the type of tile, the characteristics of the substrate and the laying method used. If the substrate has been well prepared and levelled off, for small tiles (up to 30×30 cm approximately), the consumption is about 3-4 kg/m<sup>2</sup> and for medium and large size slabs and tiles of marble or natural or artificial stone with marked relief patterns for outdoor applications (using the “buttering-floating” method), the consumption may be up to as much as 8 kg/m<sup>2</sup>.

## STORAGE

Tile 700 must be stored in a dry and protected place. Unopened in its original bags, the product can be stored for at least 9 months. KEEP AWAY FROM MOISTURE.

## CERTIFICATIONS

Product certified by A.E.C.C. – Agenzia Europea Certificazioni Costruzioni of Sassuolo (Modena), Notified Body No. 1596. Product certified by Istituto Giordano of Bellaria (Rimini) Notified Body No. 0407. Test Certificate Nos. 203731, 203773/421/CPD, 203735/423/CPD, 203736/424/CPD, AECC/0015/2006. The EC Declaration of Conformity, including copies of official test reports, is available on request.

<b>LEGEND OF CLASSIFICATION ACCORDING TO EN 12004</b>	
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](http://www.torggler.com). Version 23.06.2021.