

Torggler

Tiles and Natural Stone Installation

TILE 2020

Highly deformable, quick-setting, lightened cementitious adhesive for tiles, porcelain stoneware, stones and large marble.

- Ideal for very large formats
- Fast drying due to crystal-clear water bonding
- High strength
- Extended open time
- Super flexible and highly deformable
- Excellent workability
- High yield



APPLICATION AREAS

- Specifically for floor installation of large formats on large surfaces
- Bonding indoors and outdoors, on walls and floors, of ceramic elements of all types and formats
- Bonding of ceramic elements of all types and formats on substrates with some movement, such as balconies and terraces
- Bonding indoors and outdoors of glass mosaics and ceramic elements in pools and basins
- Bonding in overlap on ceramic or natural stone floors, as long as they are not subject to efflorescence, staining, or deformation

TYPES OF SUBSTRATE

- Cured cement screeds characterized by some movement
- Concrete walls, cement plaster or mortar-based plaster
- Internal walls made of cellular concrete blocks
- Substrates of all sizes waterproofed with flexible cementitious systems such as Flexistar, Flex 1K, and Flex 2K or liquid membranes such as Aquatech
- Heated floors and old ceramic or natural stone floors

TYPE OF MATERIAL TO BE LAID

- Single-fired and double-fired tiles, klinker
- Porcelain stoneware and glazed tiles
- Ceramic mosaic
- Glass mosaic

- Resin tiles and composite materials, marble, and natural stones as long as they are not subject to efflorescence, staining, or deformation

MAXIMUM ATTAINABLE THICKNESSES

10 mm

FEATURES

Tile 2020 is a powder-based cementitious adhesive, available in white and grey, made from special high-strength cements with fast setting and hardening, selected aggregates, a high percentage of synthetic resins, and specific additives. It is specially formulated for the installation of large and very large porcelain stoneware and glazed tiles, as well as for the installation of ceramic tiles of all types and sizes and natural stones of all types and sizes, as long as they are not subject to efflorescence, staining, or deformation. It is also suitable for applications on substrates with some movement. When mixed with water, it forms a highly workable adhesive with excellent flexibility and adhesion to all types of substrates, including old ceramic floors and coverings. The extended open time ensures secure installation even in hot and ventilated climates. The high deformability of the hardened adhesive allows it to absorb substrate movements, making it suitable for bonding floors subjected to heavy stresses. It is resistant to freeze-thaw cycles. Tile 2020 is classified as a C2 FE S2 cement adhesive according to EN 12004 standards. The product is certified EC 1 Plus by the GEV organization for very low emissions of volatile organic compounds.

WARNINGS

- Do not apply Tile 2020 on wood and wood-based composites, metal surfaces, rubber, PVC, linoleum, and derivatives.
- Do not use for the installation of marble and natural stones subject to efflorescence, staining, and deformation.
- Never mix with other binders such as cement, hydraulic lime, plaster, etc.
- Never add more water once the mixture has set.
- Do not use the mixed product once it has started to set. Always prepare only the amount that can be applied within its working time.
- Do not apply the product at temperatures below +5°C and above +35°C.
- For applications on gypsum or anhydrite surfaces, surface pre-treatment with Tile Primer or Multigrip is necessary. If in doubt, for such applications, consult our Technical Office.

INSTRUCTIONS FOR USE

Preparation for Application

The substrates must be sufficiently dry, resistant, solid, and level, free from oils and greases, dust, friable material, and general dirt, and without any paint residues. They must also be adequately cured and free from significant shrinkage. Typically, traditional cementitious screeds with normal setting and hardening should be cured for at least 28 days; cementitious plaster or mortar-based plasters should dry for at least 14 days. Large imperfections and surface irregularities such as unevenness, cavities, or gravel nests, if deeper than 20 mm, must be leveled with self-leveling compounds like Livellina 5-30 or wall mortars like Multimix Evo, Rinnova, or Restauro. Particularly porous and friable substrates, as well as those with very low mechanical resistance and easily scratched, must be pre-treated with Tile Primer.

Product Preparation

Mix Tile 2020 with 33-36% clean water (equivalent to 4.95-5.4 liters per 15 kg bag) as follows: In a suitable container, pour almost all the required water, then slowly add the powder while simultaneously mixing the forming paste using a low-speed drill with an appropriate mixing paddle. Once all the powder is added, pour in the remaining water and mix until the paste is homogeneous and free of lumps, paying particular attention to removing any unmixed material from the walls and bottom of the container. Let it rest for about 5 minutes, then briefly remix. The adhesive remains workable in the mixing container for about 40 minutes under normal conditions (at 20°C); higher temperatures shorten the working time, while lower temperatures lengthen it.

Application Instructions

In the case of direct sunlight exposure, resulting in high substrate temperatures, it is recommended to moisten the substrate with a sponge to cool it down, without leaving any surface water. Apply the adhesive using an

appropriate notched trowel, with the notch size depending on the type and size of the tiles to be bonded, ensuring total coverage of the tile backs. For better adhesion, it is recommended to first spread a thin and uniform layer of adhesive on the substrate using the smooth side of the notched trowel, and then immediately apply a second layer with the desired thickness using the notched side. Apply the tiles by pressing firmly and giving them a slight translational movement. When bonding tiles with a marked profiling on the back, for outdoor applications (especially in areas subject to high thermal variations or freeze-thaw cycles), for use on heated floors, floors subjected to heavy stresses, in pools, and for the installation of medium and large-format tiles (over 33×33 cm), it is necessary to use the “buttering-floating” technique: the mixed adhesive is spread with the notched trowel on the substrate and then applied with a trowel to the back of the tile, scraping to the level of the reliefs. This method ensures, provided the amount of adhesive spread is sufficient, a full adhesive-tile contact across the entire bonding surface (a key condition for installing floors and coverings exposed to freeze-thaw cycles and significant water stresses). Tile installation should only occur within the time frame when the spread adhesive is still fresh and tacky, i.e., it has not yet formed a skin on the surface. This time frame is called the “open time” of the adhesive, and it depends on environmental conditions. The open time of Tile 2020 is greater than 30 minutes at 23°C and 50% relative humidity. High temperatures, direct sunlight, strong ventilation, and highly porous and absorbent substrates may significantly reduce the open time, while low temperatures, high ambient humidity, and non-absorptive substrates favor a longer open time. If the open time has passed and the spread adhesive has formed a surface skin, it is necessary to re-scrape with the notched trowel to break the skin and “refresh” it. Do not wet the surface as it would form a non-adhesive water film, preventing tile adhesion and irreversibly compromising the installation. Tiles should generally not be wetted before installation; only in the case of dusty tile backs is a brief immersion in clean water recommended. For gypsum or anhydrite substrates, a pre-treatment with Tile Primer is absolutely necessary.

WAITING TIMES

After installation, protect the covering for at least 3 hours from rain and washing and for at least 24 hours from direct sunlight. In case of installation in winter months, protect the installation from freezing for at least 7 days. Joint filling can take place after about 3 hours on walls and after about 3 hours on floors, using Tile Grout ≤8 mm or Tile Grout 2-15 mm.

Note: Elastic joints should be sealed with Torggler silicone sealants. The floor can be walked on about 3 hours after installation. Final hardening, and therefore the commissioning of floors and walls bonded with Tile 2020, occurs after about 24 hours. Wait at least 7 days before filling pools and tanks.

TECHNICAL SPECIFICATIONS

PRODUCT POWDER DETERMINATIONS	WHITE	GRAY
Powder consistency	powder	powder
Apparent bulk density	0,9 kg/liter	0,9 kg/liter
Granulometry	0-0,4 mm	0-0,4 mm

FRESH MIX DETERMINATIONS	WHITE	GRAY
Mixing water	33-36 % (4,95-5,4 liters per 15 kg bag)	33-36 % (4,95-5,4 liters per 15 kg bag)
Bulk density of the mixture	1,200 kg/liter	1,200 kg/liter
Consistency of the mixture	Creamy	Creamy
Workability time of the mixture (at 23°C)	ca. 40 minutes	ca. 40 minutes
Open time (sec. EN 1346)	> 30 minutes	> 30 minutes
Setting time: start of setting (sec. DIN 18156 part 2)	15 minutes	15 minutes
Setting times: start of setting	90 minutes	90 minutes
Setting time: end of setting	105 minutes	90 minutes
Application temperature	from +5 °C to +30 °C	from +5 °C to +30 °C

HARDENED PRODUCT DETERMINATIONS	WHITE	GRAY
Adhesion by traction (sec. EN 1348): early adhesion (after 6 hours)	>0,6 N/mm ²	>0,8 N/mm ²
Adhesion by traction (sec. EN 1348): early adhesion (after 24 hours)	>1,3 N/mm ²	>1,4 N/mm ²
Adhesion by traction (sec. EN 1348): initial adhesion	>2,5 N/mm ²	>3,6 N/mm ²
Adhesion by traction (sec. EN 1348): adhesion after immersion in water	>1,1 N/mm ²	>1,1 N/mm ²
Adhesion by traction (sec. EN 1348): adhesion after heat exposure	>2,7 N/mm ²	>3,9 N/mm ²
Adhesion by traction (sec. EN 1348): adhesion after freeze-thaw cycles	>1,1 N/mm ²	>1,1 N/mm ²
Transversal deformation (sec. EN 12002)	5,1 mm	5,4 mm
Joint filling: on walls	3 hours	3 hours
Joint filling: on floors	3 hours	3 hours
Walkability	3 hours	3 hours
Final hardening	24 hours	24 hours
Operating temperature	from -30°C to +90°C	from -30°C to +90°C
Consumption	0.84 kg/m ² per mm thickness – From 1.5 to 3.5 kg/m ²	0.84 kg/m ² per mm thickness – From 1.5 to 3.5 kg/m ²
Maximum thickness achievable	10 mm	10 mm
Classification according to EN 12004	C2 FE S2	C2 FE S2
Storage	12 months in a dry and protected environment	12 months in a dry and protected environment

Color	Grey, White
Packaging	bag
Packaging size	15kg
Pallet	50 bags

CONSUMPTION

The consumption can vary from 1.5 to 3.5 kg/m². It depends on the type of tiles, the characteristics of the substrate, and the installation method. Indicatively, if the substrate has been well prepared and leveled, for mosaic tiles and small-format tiles (up to about 30 x 30 cm), the consumption is around 1.5 kg/m², while for medium and large-format tiles, with marked profiling and for outdoor applications (using the “buttering-floating” technique), the consumption is around 3.5 kg/m².

STORAGE

Tile 2020 should be stored in a dry and protected environment. In unopened original bags, it remains stable for at least 12 months. It is sensitive to moisture.

CERTIFICATIONS

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 27.02.2025.