

ISO TECHNO FIX 1053 C2TE

Product Data Sheet (TDS)

DESCRIPTION

ISO TECHNO FIX 1053 is a high performance, single component, pre-mixed cementitious tile adhesive that combines cement, a carefully graded aggregate, polymers, and specialized additives. ISO TECHNO FIX 1053 boasts excellent bond strength and thixotropic properties, making it ideal for both indoor and outdoor applications to bond all types of tiles, including ceramic, porcelain, and natural stones like marble and quartz.

USES

ISO TECHNO FIX 1053 is suitable for installing all types of ceramic, porcelain, and other non-porous tiles in various external and internal applications including:

- Bathrooms, kitchens, and other wet areas
 - Underfloor heating systems
 - Interior installations involving large-sized ceramic, porcelain, and other non-porous tiles
 - Submerged environments such as swimming pools, fountains, and potable water tanks
- It is compatible with all common substrates, including:
- Conventional renders or cementitious mortar walls
 - Block walls
 - Gypsum board
 - Cementitious screeds
 - Existing tile-on-tile flooring installations

ADVANTAGES

- Excellent bond strength between all types of tiles and all common substrates used in buildings construction.
- Highly thixotropic, non-slump adhesive to fix heavy, large format tiles and stone on a vertical surface without sagging or slipping.
- Superb performance in submerged conditions.
- Extended open time.
- Easy to apply with excellent workability.
- Low volatile organic compounds

STANDARDS

ISO TECHNO FIX 1053 is an improved (2) slip resistant (T) cementitious adhesive (C) with extended open time (E) classified as C2TE according to ISO 13007 and EN 12004 standards.



PRODUCT & TECHNICAL DATA

Consistency	Powder
Colour	White, grey
Density of the mix	1.72 ± 0.1 g / cm ³
Application Temperature Range	(+5 °C) – (+35 °C)
Service Temperature Range (after final cure)	(-40 °C) – (+80 °C)
Slip resistance (EN 12004-2)	≤ 0.5 mm
Tensile Adhesion Strength (EN 1348)	initial ≥ 1 N/mm ² after heat exposure ≥ 1 N/mm ² after immersion in water ≥ 1 N/mm ² after freeze/thaw cycles ≥ 1 N/mm ²
Open time (EN 12004-2)	≥ 30 minutes (tensile adhesion strength ≥ 0,5 N/mm ²)
Pop Life	~ 6 hours
Adjustability time	~ 25 minutes
Layer thickness	5 mm max
Mixing ratio	(26 – 28 %) of water
VOC (ASTM D2369)	< 10 g / ltr
Grouting	After: 8 Hours on wall / 24 Hours on floor Values determined based on laboratory conditions: 23 °C ± 2 °C, R.H. 50 % ± 5 %. Higher temperatures will reduce the indicated waiting time, and vice versa.
Set to light foot traffic	24 h

CONSUMPTION

Consumption is always dependent on the substrate surface profile, roughness, size of the tiles, the joints between them, and application technique. As a guide: Approx. 1.3 kg/m² per mm of thickness. It is recommended to carry-out a test on site to calculate the exact consumption for the specific substrate conditions and proposed application.

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APPLICATION PROCEDURE

Surface preparation

All substrates must be structurally sound, and provide a fixed and stable background able to support the weight of applied tiling.

Any surface defects and variations in level can be repaired using suitable repair mortars from ISO REPAIR range.

All surfaces must be clean, dry, and free from dust, oil, grease, paints, loose and friable particles, or contaminants such as dust, dirt, oil, or efflorescence.

Smooth surfaces must be reprofiled and roughened lightly to improve adhesion.

For applications in hot conditions, thoroughly pre-dampen the substrate and cool it down with water immediately before product application. Avoid any standing water on the substrate, the surface must be saturated surface dry (SSD).

Concrete and cement-based substrates must be cured at least for 2 – 4 weeks prior to tile adhesive application

To check that surface preparation and adhesion are sufficient, conduct a small test before the final application.

Mixing

Mix with a mechanically powered mixer or drill fitted with a spiral paddle to ensure proper mixing. Pour the minimum recommended quantity of clean water (26 – 28%) into a clean container. Gradually add powder to the water while mixing continuously at low speed (< 500 rpm). Mixing time should be continued for 3 - 4 minutes until a uniform consistency, smooth, and free of lumps mixture is obtained. Add additional water, if necessary, to the maximum specified amount. Let mixture stand for about 5 minutes, then remix for ~ 30 seconds without adding any more water. Avoid over-mixing to minimize air entrainment.

Application

Apply a thin layer of ISO TECHNO FIX 1053 onto the substrate using a flat edge of the trowel on the substrate. Ensure the backs of the tiles are clean and free from dust and contaminates. Immediately after, build up the thickness required according to the type and size of tile, using a suitable notched trowel.

Double spreading (buttering) technique is always recommended. Apply the adhesive with the notched trowel in a single direction. Exert adequate pressure to ensure 100 % complete and uniform contact with the adhesive to achieve optimum adhesion. The tile joints may be filled with ISO GROUT a minimum of 24 hours after the fixing of the tiles. The open time of ISO TECHNO FIX 1053 in normal conditions is 30 minutes; while in hot conditions (strong sunlight, drying wind, high temperature as well as a highly absorbent substrate), will reduce this time to a few minutes. Therefore, constantly check that the adhesive has not formed a superficial skin and is still fresh and if that happens, the adhesive must be reworked with the notched trowel. Don't wet the adhesive after it has formed skin, because the water will reduce adhesion in this case.

Recommendations

- Do not apply at a temperature below 5°C.
- Protect freshly applied material from running water and rain for at least 24 hours and must be protected from frost and strong sunlight for at least 3 days after installation.
- Do not apply on metal surfaces, wood, rubber, PVC, linoleum surfaces, or non-absorbent substrates.
- Gypsum plaster and anhydrite screed substrates must have a moisture content of doesn't exceed 0.5 %.
- Apply sufficient adhesive to ensure adequate 'wetting' of the backs of the tiles. Coverage on the back of the tiles must be 100%.
- Do not apply the product in cases that need to be immediately trafficked.
- Do not apply on walls or floors subject to extreme flexing or vibration (wood, fibre-cement, etc.)

CLEANING

All tools should be cleaned immediately after use with fresh clean water. Hardened materials should be cleaned mechanically.

PACKING

ISO TECHNO FIX 1053 is supplied in 25 kg paper bags.

SHELF LIFE

Shelf life is up to 12 months from production date when stored as per recommendations.

STORAGE

Product must be stored in original unopened packaging, under cover, out of direct sunlight and protect from extreme temperatures. In tropical climates the product must be stored in air-conditioned environment.

HEALTH AND SAFETY

As with all construction chemical products, caution should always be exercised. Wear gloves, coveralls and goggles during handling. ISO TECHNO FIX 1053 may irritate the skin or eyes due its containing cement. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advice if necessary. Treat any splashes to the skin with fresh water. If the product is swallowed accidentally, do not induce vomiting, but call for medical assistance immediately.

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