HITi
Construction Revolution

CERAFLEX 1054

Technical Data Sheet



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DESCRIPTION

HITI CERAFLEX 1054 is a cementitious, deformable, high performance floor and wall tile adhesive with reduced slip and extended open time. For residential, industrial and commercial wet and dry environments up to 12 mm thickness. Suitable for bonding all types of ceramic, porcelain, marble and natural stone tiles to all types of absorbent construction material substrates.

EN 12004 Classification: C2TES1

USES

Bonding the following types of tiles:

- Ceramic.
- Thin and large tiles.
- Earthenware.
- Marble and natural stone.
- Porcelain.
- Mosaic.
- Decorative brick.
- Stoneware.
- For tile on tile application.
- Kitchens.
- Bathrooms.
- Balconies.
- Decorative external claddings.

Maximum tile size

	Wall	Floor
Interior	up to 120 × 60 cm	up to 300 × 180 cm
Exterior	up to 60 × 60 cm	up to 120 × 60 cm

CHARACTERISTICS / ADVANTAGES

- Layer thickness: 1–12 mm (standard 6 mm)
- Deformable
- Extended open time
- **Water-resistant**, suitable for wet area conditions.
- Reduced vertical slip
- Smooth application
- High performance adhesive and bond strength.

Typical bonding substrates: Cementitious screed, concrete, plaster, ceramic tiles, gypsum fiber boards.

PRODUCT INFORMATION

Consistency	Pasty
Color	White & Grey
Packaging	25 kg bag · 80 bags per pallet
Mix Density	1.8 g/cm³
Application Temperature Range	+5 °C – +35 °C
Service Temperature Range (after final cure)	(–15 °C) – (+80 °C)
Slip	≤ 0.5 mm
Deformability	S1 Deformable, > 2.5 mm
Mixing ratio	22 – 23 % water (5.5 – 5.75 L per 25 kg bag)
Rest time after mixing	3 minutes
Pot life	90 minutes at +23 °C (shorter in hot weather)
Open Time	30 minutes at +23 °C (shorter in hot weather)
Layer thickness	Standard: 6 mm (double spread, 6 mm notched trowel) Allowed: 1 – 12 mm
Notched trowel	6 – 12 mm, according to tile size
Consumption	~8.8 kg/m² at 6 mm standard thickness ~4.4 kg/m² at 3 mm thickness
Grouting	At least 24 hours after tiling (wall and floor)
Light foot traffic	After 24 hours
Full load	After 14 days
Tensile Adhesion Strength (EN 12004)	initial ≥ 1 N/mm² after heat exposure ≥ 1 N/mm² after immersion in water ≥ 1 N/mm² after freeze/thaw cycles ≥ 1 N/mm²
Shelf life	12 months from date of production
Storage conditions	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +35 °C. Maximum 10 bags stacked.

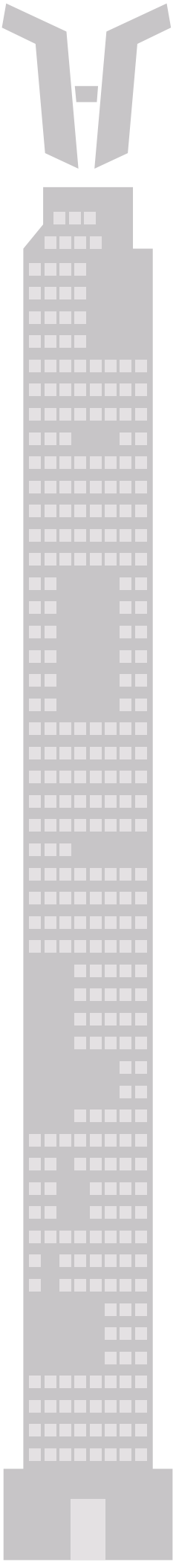
PRODUCT INFORMATION

SUBSTRATE QUALITY / PRE-TREATMENT

Important: Do not apply on metal surfaces, wood and old ceramic tiles outdoor.

The substrate can be one of the following materials:
Cementitious screed, concrete, plaster, ceramic tiles, cement lime mortars, gypsum fiber boards.

- Cementitious substrates must be sufficiently cured and dried (2–6 weeks).
- All substrates must be structurally sound, able to support the weight of the new tiling and provide a firm and securely fixed background.
- Substrates must be clean, dry, free of any loose or friable particles, contaminants such as dust, dirt, oil, wax polish, grease, cement laitance or efflorescence.
- Use adequate mechanical preparation techniques to remove from the substrate all traces of any materials that could reduce the product's adhesion to the substrate.
- Smooth surfaces must be roughened lightly to improve adhesion.
- To confirm adequate surface preparation and adhesion, carry out a small trial before full application.
- Any small surface defects and variations in level, profile, or around exposed aggregates: prefill and level with an additional layer of **HITI CERAFLEX 1054** to a maximum thickness of 5 mm, applied at least 24 hours before full application.
- For larger and thicker areas of substrate: re-profiling and making good.
- Identify cracks in the substrate and seal appropriately with epoxy resins.
- When laying tiles on non-absorbent substrates, tiles, painted surfaces etc., check these surfaces are all sound, firm and securely bonded. Use suitable degreasing / descaling products to thoroughly and completely clean the substrate.
- For applications in hot climates / environments, or on absorbent substrates, thoroughly pre-dampen the substrate immediately before product application. Avoid any ponding / standing water on the substrate. Surface must not be damp to touch.
- If a waterproofing layer is required under the tiles, cement-based or acrylic-based waterproofing products / systems must be applied to the substrate before tiling.



Mixing

- Mix **HITI CERAFLEX 1054** with clean water (22 % – 23 %, i.e. 5.5 – 5.75 L per 25 kg bag) in a pot. Add **HITI CERAFLEX 1054** gradually while mixing for 3 to 4 minutes with an electrical mixer at low speed until a smooth, lump-free paste is achieved. Let the mix rest for 3 minutes before use. Hand mixing is recommended only for small quantities, but ensure that the powder/water ratio is maintained.
- To obtain a good adhesion, first apply a thin coat of **HITI CERAFLEX 1054** with the trowel flat side, then notch with the toothed side of the trowel.
- Tiles fixed with **HITI CERAFLEX 1054** must not be in contact with water for at least 24 hours.
- Pot life: use the mixed adhesive within 90 minutes at +23 °C (shorter in hot weather). Discard mixed material after its pot life.
- Clean tools and hands with water, surfaces with a damp cloth.

Application

- Standard application: 6 mm total thickness by double spreading – apply **HITI CERAFLEX 1054** on the substrate and on the back of the tile with a 6 mm notched trowel. Allowed thickness: 1 – 12 mm; notched trowel 6 – 12 mm according to tile size.
- During application do not spread a layer of **HITI CERAFLEX 1054** over more than 1 square meter at a time.
- Open time: tiles can be placed up to 30 minutes after spreading the adhesive (at +23 °C; shorter in hot weather). After that, remove the adhesive and apply a fresh layer.
- Solid bed fixing is recommended for wet conditions and heavy-duty vertical applications, including decorative stone cladding.
- If required, **HITI CERAFLEX 1054** can additionally be buttered on the backs of the tiles to ensure full adhesive contact.
- For all other vertical applications, the adhesive bed should be combed with a full notched trowel to remove excess adhesive.
- Place the tile into position with a slight twisting motion, ensuring the tile back achieves full contact with the adhesive.
- Grouting of joints can be started at least 24 hours after tiling (wall and floor) with **HITI CERAGROUT 2000** or **HITI ULTRAGROUT 2500**.
- Light foot traffic after 24 hours; full load after 14 days.

Notes:

- **Important:** Apply sufficient adhesive to ensure adequate 'wetting' of the backs of the tiles.
- **Important:** Coverage on the back of the tiles must be 100 %.
- **Important:** Tiling must be carried out on freshly applied adhesive. Exert adequate pressure to ensure 100 % complete and uniform contact with the adhesive to achieve optimum adhesion.
- **Important:** If a skin forms on the surface of the adhesive, immediately remove the adhesive layer with a trowel, discard material and apply a fresh layer of **HITI CERAFLEX 1054** adhesive.
- **Important:** Protect freshly applied material from freezing conditions and rain, etc.

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