

### 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. Particularly suitable for façades, heated floors, swimming pools and industrial floors.

Indoor and outdoor use. EN 12004: Classification C2TES1\*.

#### **USES**

Bonding the following types of tiles:

- Ceramic.
- Thin and large tiles
- Earthenware.
- Marble and natural stone
- Porcelain.
- Kitchens

- Stoneware.
- For tile on tile application.
- Bathrooms.
- Balconies
- Decorative external claddings.

#### **CHARACTERISTICS / ADVANTAGES**

- Layer thickness: 1–12 mm
- Deformable
- Extended open time

- Reduced vertical slip
- Smooth application
- High performance adhesive and bond strength.
- Waterproof, suitable for wet areas conditions. Typical bonding substrates: Cementitious screed, concrete, plaster, ceramic tiles, calcium sulphat screed, gypsum fiber boards

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#### **PRODUCT INFORMATION**

Consistency	Pasty
Color	White & Grey
Packaging	25 kg bag
Bulk Density	1.5 g/cm3
Mixing Ratio	5.5-5.75 Liters water / 25 Kg for white powder 5.25-5.5 Liters water / 25 Kg for grey powder
Mix Density	1.8 g/cm3
Application Temperature Range	+5 °C – +35 °C
Service Temperature Range (after final cure)	(-40 °C) - (+80 °C)
Slip	≤ 0.5 N/mm2
Deformability	≥ 2.5 mm-S1 Deformable
Open Time	After 30 minutes ≥ 0.5 N/mm2
Consumption	4-5 kg/m2
Grouting	After: 8 Hours on wall / 24 Hours on floor
Mixing ratio	22 – 23 % water
Tensile Adhesion Strength (EN 12004)	after heat exposure ≥ 1 N/mm² after immersion in water ≥ 1 N/mm² after freeze/thaw cycles ≥ 1 N/mm
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.

#### **PRODUCT INFORMATION**

#### SUBSTRATE QUALITY / PRE-TREATMENT

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

**Important:** Gypsum plaster and anhydrite screed substrates must have a maximum moisture content of 0.5%.

#### The substrate can be one of the following materials:

Cementitious screed, concrete, plaster, ceramic tiles, cement lime mortars, calcium sulphate screed, 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 adhesive 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 or 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.

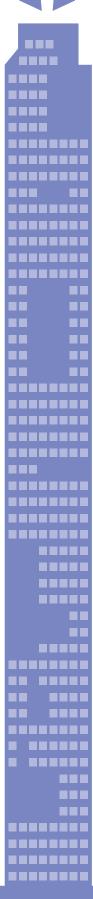
For applications in hot climates / environments, or on absorbent substrates, thoroughly pre-dampen the substrate immediately before product application.

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 and acrylic-based waterproofing product / systems must be applied to the substrate before tiling





#### **Mixing**

- Mix HITI CERAFLEX 1054 clean water with (22% 23%) in a pot, Adding HITI CERAFLEX 1054 should be gradual with mixing for 3 to 4 minutes by electrical mixer at low speed until a smooth, lump-free the paste is achieved. Hand mixing is recommended only for small quantity but ensures that 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 notches with the toothed side of the trowel.
- Tiles which fixed with **HITI CERAFLEX 1054** mustn't be in touch with water for at least 24 hours.
- Dispose of mortars of which pot life is expired (after 30 minutes). Clean tools and hands with water, surfaces with a damp cloth.

#### **Application**

Apply **HITI CERAFLEX FLEX 1054** to a uniform thickness of **3mm** to **5mm** on the substrate.

During application should not spread a layer of **HITI CERAFLEX 1054** more than square meter at a time.

Solid bed fixing is recommended for wet conditions and heavy-duty vertical applications including decorative stone cladding.

If required the **HITI CERAFLEX 1054** can additionally, be buttered on the backs of the tiles to ensure full adhesive contact.

For all other vertical application, the adhesive bed should be combed with a full notched trowel to remove excess adhesive.

Place it into position with a slight twisting motion, ensuring the tile back achieves full contact with the adhesive.

Grouting of joints can be started after 24 hours with **HITI CERAGROUT 2000** or **HITI ULTRA GROUT 2500**.

#### **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.

**Important:** For natural stone tiles, always carry out a preliminary test application first.

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