

MasterTile® 400

High Performance, Polymer Modified Cementitious Grey Colored Tile Adhesive with Extended Open Time & Reduced Slip

DESCRIPTION

MasterTile 400 is a grey colored, polymer enriched, cementitious tile adhesive with extended open time and reduced slip for thin bed fixing of fully vitrified ceramic tiles and porcelain mosaic tiles, stones in interior or exterior situations, especially those exposed to permanently wet conditions.

It provides strong adhesion to cement/sand screeds, to in-situ/pre-cast and aerated concrete, and brickwork. It is also suitable for fixing Glazed tiles, Vitrified tiles, Terrazzo, stones

RECOMMENDED USES

- Suitable for Ceramic tiles, Semi Vitrified tiles, Vitrified tiles, stones conforming to IS13712(2006) type Ia, Ib, IIa, IIb tiles
- Wet areas including kitchen, bathrooms & Showers in domestic, institutional, commercial and industrial location
- Tile on tile application
- For internal & external applications
- For Floors, Walls, Podium decks, roofs including large format tiles.
- Large format tiles & stones
- For laying non-moisture sensitive natural stone
- For Laying Ceramic, Porcelain Mosaic, Fully vitrified tiles and brick tiles.
- For Swimming pools, pool surrounds, wet rooms and cold storage depots
- For substrates such as cement screeds, precast concrete elements, aerated concrete, heated screeds, plaster and existing floors and walls
- For fixing tiles on bonded waterproofing membranes such as MasterSeal 561

FEATURES AND BENEFITS

High Performance(C2) – Can be used for Non-porous ceramic tiles with minimal water absorption

Non-slip & Excellent grab(T) – Versatile can be used for horizontal and vertical applications

Extended Open Time(E) – Allows longer working time and Faster progress

Waterproof – immersion will not affect adhesion

Thin or Thick bed - multi-purpose

High adhesive bond strength –suitable for large tiles

PROPERTIES

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| Aspect | Free Flowing |
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| | Grey powder |
| Water/powder ratio, by wt | 0.240 - 0.250 |
| Open time as per EN 1346 | > 0.5 N/mm ² (30 min) |
| Working Time | Min. 60 min |
| Temperature Resistance | Upto 80°C |
| Maximum Bed thickness | ≥ 10mm |
| Tensile Adhesion Strength at Room temperature (EN 1348) | ≥1.0 N/mm ² |
| After water Immersion (EN1348) | ≥1.0 N/mm ² |
| After Heat Ageing (EN 1348) | ≥1.0 N/mm ² |
| Slip (EN 1308) | ≤ 0.5 mm |
| Curing Time | |
| Walked on after | Approx. 24 hrs |
| Groutable after | Approx. 24 hrs |
| Able to bear weight after | Approx. 7 days |
| 1.The water powder ratio can be reduced (to approx. 0.23 to increase the non-sag properties of large-format slabs on the wall. | |
| 2.At +23°C and 50% relative humidity. Higher temperatures reduce; lower temperatures increase the times given. Data may vary depending on specific conditions at the building site, i.e. temperature, ventilation and absorbency level of the substrate and of the materials laid. | |

STANDARDS

MasterTile 400 meets the requirements of **Class C2TE** as specified in **EN 12004-2007 “Adhesives for Tiles – Requirements, Evaluation of Conformity, Classification & Design”**

MasterTile 400 meets the requirements of **class Type III ‘T’** as specified in **IS 15477:2019 “Adhesives for use with Ceramic, Mosaic and Stone Tiles - Specification”**

APPLICATION

Surface preparation

The substrate must be solid, clean and load-bearing. Oil stains, bond-inhibiting surfaces and contaminations must be thoroughly removed.

Irregularities on walls are to be leveled with **MasterEmaco N303** or polymer modified mortar using **MasterEmaco S 348**.

Highly absorbent cement based substrate and aerated concrete are to be primed with **MasterSeal 399**. Allow primer to dry.

MasterTile[®] 400

Freshly installed cement screeds must not have residual moisture content above 5 %. Concrete, screeds, renders, and block work should be cured sufficiently to allow for most of the shrinkage movements.

Tiles must be dry, and their surfaces free of contaminants that could impair adhesion. Do not soak tiles in water before laying.

Mixing

Place gauging water in a clean mixing vessel. Add powder and mix with a suitable mechanical stirrer until a plastic, lumps free consistency is achieved. Required water for 20 Kg bag is 4.8 – 5 litre depending on consistency.

Placing

Apply thin (3 to 6 mm thick) bond coat to the substrate with the straight edge of the trowel, then comb the mortar with the notched edge of the trowel. Only apply as much mortar as can be covered with tiles within the open time. Check the open time by touching the adhesive bed with your fingertip. Apply mixed material in perpendicular direction with respect to grooves on the back of tile.

MasterTile 400 is strongly recommended to additionally be buttered on the backs of the tiles to ensure full adhesive contact for large tiles (Area > 900 cm²).

Position tiles in the adhesive bed and align with a slightly pushing motion, ensuring the tile back achieves full contact with the adhesive.

Adjustments to tiles should be made during the adhesive open time. Remove excess adhesive from face of the tile with a damp sponge or cloth before it sets and rake out joint for subsequent grouting before the adhesive sets.

Ceramic tiles should never be butt jointed. Leave a minimum of 2mm around tiles.

Leave for a minimum of 24 hrs before grouting

Watch points

- Movement joints should be provided in accordance with normal practice. Refer to published local standards or BS 5385.
- Do not apply at temperatures below +5°C and above 40°C
- In hot weather conditions, pre-condition **MasterTile 400** at 21°C for at least 24 hours

and use chilled water for mixing to achieve required open times.

- Substrate must achieve 2% moisture content for safe laying of tiles.
- Stiffened mortar must neither be diluted with water nor with fresh mortar
- Do not apply **MasterTile 400** greater than 10 mm thickness on horizontal surfaces and vertical surfaces.

ESTIMATING DATA

Approximately 0.97 kg/m² for 1mm thickness

** The consumption rates of dry powder are based on lab trials and might vary subject to variation of subfloor level and surface regularity. The reverse profile of the used ceramic and the surface structure of the substrate to be covered are also important factors, besides the tile size, for the consumption of mortar.*

PACKAGING

MasterTile 400 is available in 20 Kg bags

SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 12 months when stored as above.

PRECAUTIONS

It is highly recommended to use necessary PPE (Gloves, mask etc.) during installation of the product. In case of Incidents of direct inhalation, causing dizziness/giddiness, loss of consciousness, contact with eyes etc, seek immediate medical advice. The requirements may vary depending on the application areas. Please ensure to have proper ventilation while working in confined areas. Contact Master Builders Solutions representative in case you need further details or refer to the material safety datasheet of the product to know more.

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MasterTile[®] 400

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