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# MasterTile®FLX 424

Deformable multipurpose grey coloured tile adhesive for all ceramic coverings, porcelain, nonmoisture sensitive natural stones and substrates

### **DESCRIPTION**

MasterTile FLX 424 is a grey colored, polymer enriched, cementitious flexible tile adhesive with extended open time and reduced slip for thin bed fixing of fully vitrified ceramic tiles and porcelain mosaic tiles in interior or exterior situations, especially those exposed to permanently wet conditions or substrates subject to deformations

## **RECOMMENDED USES**

**MasterTile FLX 424** is the adhesive of choice for demanding substrates and demanding situations. Typical application Areas include:

- Suitable for Ceramic tiles 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.
- For laying non-moisture sensitive natural stone
- For Laying Ceramic, Porcelain, 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.
- On cementitious screeds, ground anhydrite and/or gypsum based floated screeds, precast concrete elements, aerated concrete, heated screeds, plasterboards, gypsum fibre boards, dry screeds, plaster, masonry, old ceramic tiles.

## FEATURES AND BENEFITS

- High Performance(C2) Can be used for Nonporous 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

- Deformable Adhesive (S1) Non sag, no need for battens and spacers
- Waterproof immersion will not affect adhesion
- Thin or Thick bed multi-purpose
- High adhesive bond strength –suitable for large tiles
- Resistant to temperatures from -30°C to +80°C, multi-purpose use indoors and out, on walls and floors.
- Flexible compensates changes in temperature and elongations of the substrate.

#### **PROPERTIES**

- 6 mm

- 8 mm

- 10 mm

Typical Properties				
Aspect	Free flowing grey powd			
Material base	Powder mixture with elastifying polymers.			
Shelf Life	Min. 6 months			
Packaging	25 Kg bag			
Product class	COTECA			

according to EN 12004	C2TES1
APPLICATION	
Water/Powder ratio by weight	0.24-0.25
Temperature Range for Application	from +5 °C to +35 °C
Slake time	approx. 3 minutes
Working time **	min 1 hr.
Open Time**	30 minutes
Maximum Thickness of adhesive bed	≤ 10 mm
Curing times** (on slightly absorbent substrates) - Walked on after - Groutable after - Able to bear weight after	Approximately 24 hours Approximately 24 hours Approximately 7 days
Temperature resistance	Up to 80°C
Consumption* Required notch size	Amount of powder / m <sup>2</sup>



Approximately 2.2 kg / m<sup>2</sup>

Approximately 2.8 kg / m<sup>2</sup>

Approximately 3.5 kg / m<sup>2</sup>



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Coverage\*
Required notch size
- 6 mm
- 8 mm
- 10 mm

25 kg of bag is sufficient for approx.
11.0 m<sup>2</sup>
9.0 m<sup>2</sup>
7.2 m<sup>2</sup>

\* 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.

\*\* 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.

\*\*\* The water quantity can be reduced (to approx. 230 ml/kg) to

\*\*\* The water quantity can be reduced (to approx. 230 ml/kg) to increase the non-sag properties of large-format slabs on the wall.

ADHESIVE CERTIFICATION TO EN 12004 STANDARDS (C2TES1)		
Open Time – EN 1346	30 minutes	
Tensile adhesion strength after dry storage, (28 days)-EN 1348	≥ 1.0 N/mm²	
Tensile adhesion strength after water immersion- EN 1348	≥ 1.0 N/mm²	
Tensile adhesion strength after heat ageing- EN 1348	≥ 1.0 N/mm²	
Slip – EN 1308	≤ 0.5 mm	
Deformable Adhesive: Transverse deformation – EN 12002	≥2.5mm & <5mm	

## **STANDARDS**

MasterTile FLX 424 meets the requirements of Class C2TES1 as specified in EN 12004-2007 "Adhesives for Tiles – Requirements, Evaluation of Conformity, Classification and Design"

## **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 131.

Highly absorbent cement based substrate and aerated concrete are to be primed with **MasterSeal 511 or MasterSeal 399**. Allow primer to dry.

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 lying.

### 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 25 Kg bag is 6 – 6.25 litres depending on consistency.

### **Placing**

Apply thin (3 to 6 mm thick) bond coat to the substrate with the straight edge of the notched trowel. Then comb mortar on to the fresh bond coat with the notched edge of the trowel working in the direction, if possible.

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.

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

MasterTile FLX 424 is strongly recommended to additionally be buttered on the backs of the tiles to ensure full adhesive contact for large tiles (Area > 900 cm²). Ceramic tiles should never be butt jointed. Leave a minimum of 2mm around tiles.

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.

Leave for a minimum of 24 hrs before grouting.





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## **ESTIMATING DATA**

As a guide the following consumption table can be used.

Required Notch Size*	Tiling area
6mm	Approximately 2.2kg/m <sup>2</sup>
8mm 10mm	Approximately 2.8kg/m <sup>2</sup> Approximately 3.5kg/m <sup>2</sup>

<sup>\*\*</sup> 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 FLX 424 is available in 25 kg pack.

## 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 airconditioned environment.

Shelf life is 6 months when stored as above.

#### **PRECAUTIONS**

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Material Safety Data Sheet (MSDS) from our office or our website.

TDS Reff: MasterTileFLX424/01/0216

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