

MasterTile[®] FLX 420

Flexible tile adhesive for all ceramic tiles, porcelain, mosaic, fully vitrified and non-moisture sensitive natural stone tiles

TYPICAL APPLICATIONS

- For indoor and outdoor use.
- For walls and floors.
For laying ceramic tiles, porcelain mosaic, brick tiles, clinker bricks, fully vitrified tiles and non-moisture sensitive natural stone tiles.
- In swimming pools, pool surrounds, wet rooms and cold storage depots.
- On cement screeds, ground anhydrite and/or gypsum based floated screeds, precast concrete elements, aerated concrete, heated screeds, plasterboards, gypsum fibre boards, dry screeds, insulation boards, plaster slabs and plaster.
- For laying ceramic on the bonded waterproofing **MasterTile WP 668**.
- For laying ceramic tiles on the crack isolating fabric underlay **PCI Pecilastic** and the flexible waterproofing membrane **PCI Pecilastic W**.

ADVANTAGES

- Waterproof and resistant to temperatures from -30°C to +80°C, multi-purpose use indoors and out, on walls and floors, wet and dry
- Non sag, no need for battens and spacers, therefore easy and quick application
- Flexible, compensates changes in temperature and elongations of the substrate.

STANDARDS

MasterTile FLX 420 meets the classification requirements for a C2T according to EN 12004.



Secure laying of tiles with **MasterTile FLX 420**.

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TECHNICAL DATA

MATERIAL

Material base	Powder mixture with elastifying polymers. Does not contain any asbestos or other mineral fibres. No injurious silica dust during the application.
Labelling for -Regulation for hazardous goods on roads -Regulation for hazardous materials <i>For further information refer to Health & Safety</i>	non hazardous irritant, contains cement
Packaging	25 kg (based on availability) PE lined heavy-duty paper bag
Color	Grey & White
Shelf life	12 months
Storage	in dry conditions, no permanent storage over +40°C

APPLICATION

Consumption Required notch size - 4 mm - 6 mm - 8 mm - 10 mm Solid bed	Amount of powder / m ² approx. 2.0 kg/m ² approx. 3.0 kg/m ² approx. 4.0 kg/m ² approx. 5.0 kg/m ² approx. 1.2 kg/m ² per mm thickness
Coverage*	MasterTile FLX 420 is sufficient for approx.
Required notch size - 4 mm - 6 mm - 8 mm - 10 mm	for 25 kg bag: 12.5 m ² 8.35 m ² 6.25 m ² 5.0 m ²
Thickness of adhesive bed	up to max. 10 mm
Working temperature	+5°C to +40°C
Gauging water - 1 kg powder - 25 kg bag	approx. 0.24-0.25 L approx. 6-6.25 L
Slake time	approx. 3 min
Working time**	approx. 1 h
Open time**	approx. 30 min
Curing times** (on slightly absorbent substrates) - Walkable after - groutable after - able to bear weight after	approx. 24h approx. 24h approx. 7 days
Temperature resistance	-30°C to +80°C

* 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. The indications refer to the installation of slightly profiled non vitrified or vitrified tiles on render or cement screed.

** At +23°C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase the times given.

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APPLICATION GUIDELINES

PREPARATION OF SUBSTRATE

Minimum age of the substrate:

- **MasterTop 500 Series** screed – 3 days
- Cement screed - 28 days

Note: The screed drying time is subject to the screed thickness and site conditions. For applications before 28d please contact Master Builders Solutions Technical Service Department.

- Concrete - 3 months

The substrate must be sound, clean and able to bear weight. Oil stains, bond-inhibiting surfaces and other residues must be thoroughly removed. The substrate must be plumb and flush in accordance with BS 5385. Plaster substrates must be approved by the plaster manufacturer for fixing ceramic tiles and must be suitable for the intended area of use.

Level substrate irregularities on walls with the leveling compound Emaco or with the repair mortar Emaco. Level concrete floors with **MasterTop 500 Series** screeds.

Prime very absorbent cement based substrates and aerated concrete with **MasterTile P 302**, diluted 1:1 with water, anhydrite and/or gypsum-based floated screeds as well as gypsum-based substrates inside of buildings with undiluted **MasterTile P 302**. Allow the primer to dry.

Newly applied cement screeds must not have a residual moisture content over 4%, anhydrite and/or gypsum-based screeds not more than 0.5% (measured with a CM meter).

MIXING OF BEDDING MORTAR

- Place gauging water (see table) in a clean mixing vessel. Add powder and mix the mortar with a suitable paddle (e.g. from Collomix) attached to an electric drill until a plastic, lump-free consistency is achieved.
- Allow a slake time of approx. 3 minutes for **MasterTile FLX 420**, then remix briefly.

LAYING TILES

- Apply a thin scratch coat to the substrate with the smooth edge of the trowel.
- Comb mortar onto the fresh scratch coat with a notched trowel. Apply the adhesive bed in one direction, if possible. Apply only as much mortar as can be covered with tiles during the open time. Check the open time by touching the mortar with your finger tip.
- Place tiles in the adhesive bed with a twist and slide motion and adjust to correct position.

GROUTING

- *Joint width from 1 to 6 mm: **MasterTile 530***
*Joint width from 1 to 10 mm: **MasterTile 545***
- *Elastic joints*
 Movement joints, corner joints (floor/wall) and connection joints (fixtures/tiles, wood/tiles) should be sealed with the elastic silicone joint sealant. **MasterSeal 121, MasterSeal 122, or MasterSeal 123NS.**

PLEASE NOTE

- Do not apply at temperatures below +5°C and above +40°C and under extreme hot and windy conditions.
- The scratch coat must have cured prior to the installation of tiles on inside walls on existing ceramic coverings not being exposed to wetness.
- Mixed **MasterTile FLX 420** can be applied for approx. 1 hour. Higher temperatures reduce, lower temperatures increase the times given.
- Substrates made of precast concrete elements and/or in-situ concrete must be at least 3 months old (at +23°C and 50% relative humidity).
- The open time is reduced in case of absorbent substrates (recommendation: priming with **MasterTile P 302**).
- Never add water or dry powder to reconstitute a **MasterTile FLX 420** mix which has already begun to set.

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- When laying tiles outdoors use **MasterTile FLX 420** in the combined method (buttering-floating). The substrate must have a slope of min. 1.5%.
- After laying mosaic tiles it is required to remove the adhesive from the joints down to a uniform depth to ensure proper, stain-free grouting afterwards. This also applies to front-sided paper-faced mosaic.
- For Natural Stones or artificial stones subject to staining and/or deformation please use **MasterTile NTS 26 Rapid**. Please consult Master Builders Solutions Technical Service for advice.
- Tools and ceramic coverings should be washed with water immediately after use; once the product has cured it can only be removed by mechanical means.
- Store in dry conditions, no permanent storage over +40°C. Open bags must be closed immediately after use.
- When laying tiles on facades please follow the standard DIN 18 515-1 "Outwall claddings".

HEALTH AND SAFETY

MasterTile FLX 420 contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Risk of serious damage to eyes, therefore, avoid contact with eyes and prolonged contact with skin. In case of contact with eyes immediately rinse with plenty of water and consult a doctor. In case of contact with skin remove contaminated clothing immediately and wash skin with plenty of soap and water. Wear suitable protective gloves (e.g. cotton gloves soaked in nitrile) and safety goggles/face protection. If ingested seek prompt medical attention and show packaging or this technical data sheet. Keep out of reach of children.

For further information refer to the Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

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