MasterTile® FLX 24

HIGH PERFORMANCE, DEFORMABLE, MULTI PURPOSE TILE ADHESIVE FOR ALL CERAMIC COVERINGS, GLASS MOSAIC, PORCELAIN AND NON-MOISTURE SENSITIVE NATURAL STONES TILES

AREAS OF APPLICATION

- For indoor and outdoor use.

- For walls and floors.

- For laying non-vitrified tiles, vitrified tiles, fully vitrified tiles, porcelain mosaic, glass mosaic, glass tiles, brick tiles, terracotta, artificial and non-staining natural stones.

- In swimming pools, pool surrounds, wet rooms and cold storage depots.

- On cementitious 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, plaster, masonry, old ceramic tiles and even, sound wooden substrates such as wooden chipboards, OSB boards etc., cork rubber mats and on existing wall and floor tiles.

- For laying ceramic on the bonded waterproofing PCI Lastogum (e.g. private bathroom) and **MasterSeal 588** (e.g. swimming pool and terraces).

- For laying tiles on the supporting elements PCI Pecidur made of high resistance foam on impact sound insulation and isolation board PCI Polysilent as well as the isolating fabric underlay PCI Pecilastic.

- **MasterTile FLX 24** is suitable for the installation of PCI Polysilent/ PCI Polysilent plus and PCI Periphone.

Secure laying of tiles with **MasterTile FLX 24**

FEATURES AND BENEFITS

- Waterproof and resistant to temperatures from -30°C to +80°C, multi-purpose use indoors and out, on walls and floors.

- Non sag, no need for battens and spacers, therefore easy and quick application.

- Flexible, compensates changes in temperature and elongations of the substrate.

- **MasterTile FLX 24** meets the classification requirements C2TE S1 according to EN 12004.

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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 *For further information refer to Health & Safety*	non hazardous irritant, contains cement
Packaging	25 kg PE lined heavy-duty paper bag
Shelf life	min. 6 months
Storage	in dry conditions, no permanent storage over +40°C

APPLICATION

Consumption	
Required notch size	
- 4 mm	approx 1.5 kg / m²
- 6 mm	approx 2.1 kg / m²
- 8 mm	approx 2.7 kg / m²
- 10 mm	approx 3.4 kg / m²
Solid bed	approx 1.3 kg / m² and mm thickness
Coverage*	25 kg **MasterTile FLX 24** is sufficient for approx.
Required notch size	
- 4 mm	16.6 m²
- 6 mm	11.9 m²
- 8 mm	9.3 m²
- 10 mm	7.4 m²
Thickness of adhesive bed	up to max. 10 mm
Working temperature	+5°C to +40°C
Gauging water	
- 1 kg powder	approx. 0.24 – 0.25 litre
- 25 kg bag	approx. 6 – 6.25 litre
Slake time	approx. 3 minutes
Working time***	approx. 1 hour
Open time**	approx. 30 minutes
Curing times** (on slightly absorbent substrates)	
- Walked on after	approx. 24 hours
- groutable after	approx. 24 hours
- able to bear weight after	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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PREPARATION OF SUBSTRATE

Minimum age of the substrate:
- **MasterTop 548** – 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 548** or the screed leveller **MasterTop 528**.

Prime very absorbent cement based substrates and aerated concrete with PCI Primer Gisogrund, diluted 1:1 with water, anhydrite and/or gypsum- based floated screeds as well as gypsum-based substrates inside of buildings with undiluted PCI Primer Gisogrund. 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).

Prime old ceramic tiles with PCI Gisogrund 303. Wooden chipboards or OSB boards may have a moisture content of max. 10%. The wooden chipboard (V100) or OSB board must be at least 25 mm thick if applied to floors and at least 19mm when applied to walls. The chipboards must be screwed to the substructure at a distance between screws of max. 40cm. The edge joint must be at least 8 mm wide. The butt joints of the chipboards must be glued. Prime wooden chipboards and

OSB boards with PCI Gisogrund 303 in dry areas. In areas exposed to moisture use PCI Wadian as primer and PCI Lastogum as waterproofing membrane. Allow primer to dry.

APPLICATION PROCEDURE

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 24**, 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

- *Elastic joints*
  The standards issued by the Central Association of the German Building Industry are valid for the layout of joints.
  Movement joints, corner joints (floor/wall) and connection joints (fixtures/tiles, wood/tiles) should be sealed with the elastic joint sealant PCI Silcofug E or PCI Silcoferm S.

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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 24** 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 PCI Primer Gisogrund).
- Never add water or dry powder to reconstitute a **MasterTile FLX 24** mix which has already begun to set.
- When laying tiles outdoors use **MasterTile FLX 24** in the combined method (buttering-floating). The substrate must have a slope of min. 1.5%.
- The bonding agent PCI Polyhaft should be applied for the installation on existing ceramic outdoors or under exposure to permanent water (e.g. shower facilities etc.).
- 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.
- When laying mosaic in swimming pools use only front sided paper-faced or front-sided foil-faced mosaic.
- For translucent glass mosaic please use **MasterTile FLX 24** white or PCI Carralight (unblended for use in dry areas, blended with PCI Lastoflex HT for use in wet areas).

- Glass tiles with a reaction resin coating on the reverse side may only be laid with **MasterTile FLX 24** if the coating is alkali resistant.
- For Natural Stones or artificial stones subject to staining and/or deformation please use PCI Carralight, PCI Carraflott NT or PCI Carrament. 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 +30°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 24 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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