

MasterTile[®] 434

A high performance single component latex polymer modified tile adhesive

AREAS OF APPLICATION

- For indoor and outdoor use.
- For walls and floors.
- For laying ceramic tiles, porcelain and glass mosaics, brick tiles, clinker bricks, fully vitrified tiles and non-critical natural stone tiles and pavers.
- 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, plaster and on existing wall and floor tiles.
- For laying ceramic on the bonded waterproofing **PCI Lastogum**.
- For laying ceramic tiles on the isolating fabric underlay **PCI Pecilastic** and the flexible waterproofing membrane **PCI Pecilastic W**.
- Single component version of **MasterTile 30 + MasterTile 200** adhesive system Secure laying of tiles with **MasterTile 434**

FEATURES AND BENEFITS

- **MasterTile 434** adhesive can be used to fix all types of non-moisture sensitive natural stone. For moisture sensitive natural stone, please refer to the Master Builders Solutions Natural Stone Range of Products, or contact the Master Builders Solutions Technical Department.
- 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.

STANDARDS

MasterTile 434 adhesive conforms to the requirements of ANSI A118.4 for latex Portland cement mortar.

COVERAGE

Full bag 20 kg bag with 4.5 liters will cover an area of 5.6 m² at 6 mm depth Notch trowel.

Note: The consumption depends on the surface profile and roughness of the substrate and on the size of the tiles and the placing technique (simple placing "floating" or back to back "buttering-floating").

APPLICATION PROCEDURE SURFACE PREPARATION

All surfaces must be clean, dimensionally stable, sound and free from all traces of oil, grease, mould release agent and curing compound. It should be ensured that tiles are dry, and free of contaminants that could impair adhesion.

Concrete, screeds, renders, and blockwork should be cured sufficiently that all shrinkage movement has occurred.

MIXING INSTRUCTIONS:

Add **MasterTile 4** to cool, clean water at the following rates: By weight 4 – 4.5 :1. Mix to a uniform lump free consistency and allow to stand for 5 minutes before use. Full bag volumes should ideally be mixed in a forced action mixer. Part bags should be mixed using a slow speed drill and mixing paddle.

APPLICATION INSTRUCTIONS:

Apply **MasterTile 4** to a uniform thickness of 3 to 6mm or sufficient to cover the studs or keys on the tile back; on a working area of not more than 1 m². Solid bed fixing is recommended for all horizontal applications and for ceramic tiles. If preferred, **MasterTile 4** can additionally be buttered on the backs of the tiles to ensure full adhesive contact.

For all other vertical applications the adhesive bed should be combed horizontally with a notched trowel to remove excess.

Tiles should be dry and fixed by pressing into place with slight twisting motion, ensuring the tile back achieves full contact with the adhesive.

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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
	Grey and White
Shelf life	1 year
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 1.6 kg/ m ² approx 2.2 kg/ m ² approx 2.7 kg/ m ² approx 3.4 kg/ m ² approx 1.4 kg / m ² and mm thicknes
Coverage* Required notch size - 4 mm - 6 mm - 8 mm - 10 mm	25 kg MastertTile 434 is sufficient for approx. 15.6 m ² 11.4 m ² 9.3 m ² 7.4 m ²
Thickness of adhesive bed	up to max. 10mm
Working temperature	+5°C to +40°C
Gauging water - 1 kg powder - 25 kg bag	approx. 0.27-0.28 litre approx. 6.75-7.0 litre
Slake time	approx. 3 minutes
Working time**	approx. 1 hour
Open time**	approx. 30 minutes
Curing times** (on slightly absorbent substrates) - Walkable - groutable after - able to bear weight after	approx. 24 hours approx. 24 hours 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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AREAS OF APPLICATION

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 **MasterEmaco** or with the repair mortar **MasterEmaco**. Level concrete floors with **MasterTop 548** or the screed leveler **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).

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 434**, 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**.

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 434** can be applied for approximately 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 434** mix which has already begun to set.
- When laying tiles outdoors use **MasterTile 434** in the combined method (buttering-floating). A substrate slope of 1.5% is recommended to reduce the risk of water pooling.

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- The bonding agent should be applied prior to fixing tiles onto existing ceramic coverings especially outdoors or in areas exposed 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.
- 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 18515-1 "Outwall claddings".

HEALTH AND SAFETY

MasterTile 434 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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NOTE

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Master Builders Solutions representative.

Master Builders Solutions reserves the right to have the true cause of any difficulty determined by accepted test methods.

QUALITY AND CARE

All Master Builders Solutions Products are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health and safety standards of ISO 9001 and Master Builders Solutions ESHQ recommendations.

* Properties listed are based on laboratory controlled tests.

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CONTACT

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Disclaimer:

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with Master Builders Solutions and possible resulting damages are in the sole responsibility of the customer.

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