

# MasterTile<sup>®</sup> EPO 707

High performance epoxy grout and adhesive for all types of wall and floor tiles, natural stone, glass mosaics and agglomerates.

## DESCRIPTION

A two component epoxy resin based adhesive for permanent bedding of all types of tiles, natural stones and agglomerates.

## PRIMARY USES

**MasterTile EPO 707** is used wherever a high degree of chemical resistance and high mechanical properties are required.

## AREAS OF APPLICATION

- For indoor and outdoor use.
- For walls and floors.
- For chemical-resistant and water-impermeable laying and grouting of wall and floor coverings made of ceramic tiles, mosaic as well as bricks on renders, cement screeds, concrete and timber chipboards.
- For ceramic coverings in dairies and bakeries, soft drink industries, Industrial and canteen kitchens, butcheries, slaughter houses, fat processing industries, battery rooms, galvanization, electrical substations and plants rooms, dye works, bleaching works, tanneries, paper mills, laboratories and hospitals.
- For laying and grouting of ceramic tiles in swimming pools, hot springs, baths in hospitals as well as for ceramic tiles in shower facilities or wellness areas.
- For ceramic tiles in administration buildings, hotels, schools, toilets, sewage plants, sewers, cattle stabling and for stairs exposed to de-icing salt.

## FEATURES AND BENEFITS

Non-absorbent easy to clean.

- Resistant to chemicals, a variety of acids, lye, grease and oil.
- Water impermeable and water vapour barrier, protects moisture-sensitive substrates from water and moisture.
- High wear resistance, resistant to rolling and grinding loads, insensitive to cleaning by steam jet.
- Will not support bacterial growth in kitchens and swimming pools.
- Crack-free curing and setting without shrinking, very high adhesion to joint sides.
- Resistant to frost and weathering, multi-purpose use for vertical, horizontal, external and internal applications.
- High mechanical strength, good adhesion to joint sides, low modulus of elasticity, therefore superior to cement-based joint grouts.
- Workable and easy to apply, for joint width from 2 to 10 mm.
- Produces smooth joint surfaces low in pores and easy to clean.
- Almost odourless, no unpleasant odour during the application.
- Tools and equipment can be cleaned in warm water.
- Fire Rating Classification (E) – EN ISO 11925-2
- **MasterTile EPO 707** meets the classification requirements RG Class according to EN 13888
- **MasterTile EPO 707** meets the classification requirements R2T Class according to EN 12004
- **MasterTile EPO 707** meets the classification requirements ANSI 118.3

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## APPLICATION

<b>Consumption</b> <b>(Ready mixed material)</b> <b>Tile Laying</b> Required notch size - 4 mm - 6 mm - 8 mm	approx 1.67 kg / m <sup>2</sup> approx 2.50 kg / m <sup>2</sup> approx 3.16 kg / m <sup>2</sup>
<b>Coverage*</b> <b>Tile Laying</b> Required notch size - 4 mm - 6 mm - 8 mm  <b>Grouting</b> -Tiles 15 cm/15 cm/5 mm -Medium Mosaics 5cm/5 cm/3 mm	5 kg of <b>MasterTile EPO 707</b>  3 m <sup>2</sup> 2 m <sup>2</sup> 1.6 m <sup>2</sup>  3.6 m <sup>2</sup> 4 m <sup>2</sup>
<b>Thickness of adhesive bed</b>	from 2 mm
<b>Joint width</b>	2 to 10 mm
<b>Working temperature</b>	+5°C to +40°C (+10°C to 25°C)
<b>Working time**</b>	approx. 45 minutes
<b>Open time**</b>	- 25°C 60 minutes - 40°C 30 minutes
<b>Curing times**</b> <b>Laid flags</b> - grout able on walls - walkable/grout able on floors  <b>Grouted floor coverings</b> - walkable - can be exposed to water and chemical	approx. 4 hours approx. 16 hours  approx. 16 hours approx. . 7 days
<b>Cleaning/ Emulsifying</b>	20-30 minutes
<b>Temperature resistance</b>	-20°C to +60°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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## TECHNICAL DATA - MATERIAL

Material base	Epoxy resin system with fine fillers and pigments
Max. service temp	60°C
Density	1600 Kg / m <sup>3</sup>
Components	2 part
Packaging	5 kg combined unit (Incl. hardener)
Mixing Ratio	4 kg base component + 1 kg hardener component
Shelf life	min. 12 months
Storage	in dry conditions, no permanent storage over +30°C
Color	Different colors

## APPLICATION PROCEDURE

### PREPARATION

Ensure that all bond inhibiting materials are removed; the surface should be dry, clean and dust free. Moisture content of the substrate should not be higher than 5% and any necessary repair work should be carried out prior to tiling, for further advice contact BASF technical services.

### MIXING

**MasterTile EPO 707** must be mixed with a suitable drill and mixing paddle. Add parts A and B and mix until a uniform colour and consistency are obtained.

### BEDDING

Apply the mixed **MasterTile EPO 707** to the substrate using a suitably sized notch trowel i.e: 4mm, 6mm or 8mm depending on the size and thickness of the tile. Solid bed fixing can be achieved by back buttering the tile with a thin layer of **MasterTile EPO 707** before fixing into the notched bed. Ensure that the size of the area can be tiled within the pot life of the **MasterTile EPO 707**.

### TILING

Tiles should be pressed into place and properly aligned when bedded, ensure at least 80% of the tile back is in contact with the adhesive. A minimum tile joint width of 2mm must be left for the grouting and 3mm where thicker tiles are used.

### GROUTING (WALLS AND FLOORS)

The grouting of the tile joints can be carried out after 24 hours when the bedding has fully hardened.

Apply the mixed grout to the tile joints using a hard rubber float ensuring full compaction, avoid spreading the grout over the tiles (*with the exception of Mosaics*) as this is unnecessary and will increase the cleaning time. Clean all excess surface grout from the tile by holding the rubber float at 90 degrees and diagonal to the tile joint and scrape away the excess. Allow the grout to firm in the tile joints which will be approximately 10-15 minutes for the **MasterTile EPO 707** (*depending on ambient temperature*). First cleaning can be done with a sponge float or good quality firm sponge and warm water wiping in a circular motion to form the joint profile. A further cleaning can be given as soon as the grout is firm enough not to be washed out of the joint (**do not let the resin harden on the tile**). When the joint is fully firm clean off any surplus grout or haze with a sponge and warm water and in the case of floor tiling immediately restrict the area from foot traffic. To maintain the appearance of the new installation cover and protect as soon as the grout has hardened.

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## WASHING GROUTED COVERINGS

After approx. 5-10 minutes give first wash with warm water and PCI epoxy sponge hard or pad rubbing in circular motion.

Then wash with a soft viscous sponge (e.g. PCI epoxy sponge soft), rinsing out sponge frequently.

For easier cleaning of the remaining haze (after approx. 15 minutes) customary citric acid (mixing ratio: 50 g citric acid for approx. 6 litres of water) can be added to the warm, clear wash water. When the joint grout has cured remaining haze can also be removed with this wash water; major contamination can be cleaned with the special epoxy cleaner by PCI.

## CURING

Normally reactive resin products require at least 7 days curing @ 25°C to achieve the specified performance and service expectations. At lower temperatures the curing period will be extended.

## WATCH POINTS

- Vertical fixing of tiles with the **MasterTile EPO 707** is possible, large format very heavy tiles may need additional support to prevent slippage.
- Movement joints where appropriate should be filled with PCI Silcoferm S silicone sealant, for normal practices refer to the BS Standard 5385.
- Tiling should be in accordance with relevant international Codes of Practice.
- Generally, exposure to high exterior temperatures of 40°C will have some effect on the tiles and pot life of the grout (*the surface temperature of the tiles could exceed 60°C*). Do not add water or solvents.

## CHEMICAL RESISTANCE

Excellent resistance to most aqueous systems including sewage, urine, salt water, dilute acids, oils and fats.

## STORAGE

Prior to application the **MasterTile EPO 707** components should be stored under cover and protected from extreme temperatures as this could contribute to inconsistent workability. When temperatures exceed 40°C during application the working time may be reduced by as much as 50%. Shelf life is 12 months when product is stored in shaded areas in unopened containers.

## SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Reseal containers after use. For further information, refer to material safety data sheet.

## QUALITY AND CARE

All BASF 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 BASF ESHQ recommendations.

\* Properties listed are based on laboratory controlled tests.

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### STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this BASF 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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