

MasterTile[®] RSG 705

High performance epoxy grout for bedding and grouting tiles in heavy duty conditions

DESCRIPTION

A three-component epoxy resin based adhesive and grouting system for pavements, ceramic and acid resistant tiles, in medium and heavy duty corrosive and hygienic environments.

TYPICAL APPLICATIONS

MasterTile RSG 705 is an ideal material to bed and grout tiles in a single operation with one material. It is used wherever a high degree of chemical resistance and excellent mechanical properties are required.

- Food production: meat, fish, vegetable and fruit processing, canning areas, dairies and bakeries.
- Industrial kitchens and catering facilities.
- Electrical substations and plant rooms.
- Laboratories.
- Swimming pools and leisure facilities.
- Heavy duty workshops, garages and services facilities.
- Bottling plants and breweries.

ADVANTAGES

- Non-absorbent easy to clean and hygienic in service.
- Dual purpose: bedding and grouting of tiles with the same material.
- Excellent resistance to a wide range of chemicals and acids.
- Impermeable: resistant to staining and absorption when permanently immersed in water.
- Will not support bacterial growth in kitchens, swimming pools etc.
- Excellent adhesion to most commonly encountered building substrates and materials.
- Water miscible: tools and equipment can be cleaned with water and uncured material can be wiped off tiles with a wet cloth following grouting.
- Excellent proven performance.
- Suitable for vertical and horizontal applications in interior and exterior locations.

PACKAGING

MasterTile RSG 705 is available in 5 L (9.5kg) packs.

Part A: 1.213kg
 Part B: 0.547kg
 Part C: 7.74kg

STANDARDS

EN 12004 & EN 13888, ANSI 118.3

TYPICAL PROPERTIES*

Density	Approx. 1.90kg/L
Pot life	60 min @25°C 30 min @40°C
Flexural strength BS 6319 Part 3 / ASTM C580-98 Method A	>30 N/mm ²
Tensile strength BS 6319 Part 7 / ASTM C307	>15 N/mm ²
Max. service temp	60°C
Compressive strength ASTM C579-01 Method B	>80 N/mm ²
Water absorption ASTM C413-01	<0.2%
Pull Off Bond Strength ASTM D4541-2002	>2.5 N/mm ²

APPLICATION GUIDELINES

To the prepared surface apply a solid bed of adhesive to a minimum thickness of 3mm. Ensure that the size of the working area can be tiled within the pot life of the **MasterTile RSG 705**. On vertical applications, the adhesive must be applied with a notched trowel to leave a ribbed bedding.

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SURFACE PREPARATION

Ensure all laitance and contaminants such as oil, grease and coating systems are removed by either mechanical wire brushing or grit blasting. The surface should be dry and any dust should be removed by an industrial vacuum. The surface should contain no more than 5% moisture and any major repairs in the form of damaged arrisses, cracks and honeycombing should be repaired with the appropriate Master Builders Solutions repair system. Where minor blemishes like blowholes exist, these can be filled out simultaneously with the bedding adhesive when it is applied.

Prior to application, **MasterTile RSG 705** systems should be stored under cover and protected from extremes of temperatures which may cause inconsistent workability and cure times for the mixed material. Ideally, at least 24 hours before mixing, **MasterTile RSG 705** systems should be maintained at approximately 20°C.

During application in cold conditions, correct conditioning can help, but application should be halted if the ambient temperature is likely to fall below 10°C. Consideration should be given to the substrate or base slab as it is likely to be considerably colder than the surrounding air temperature. When temperatures exceed 30°C during application, working times may be reduced by as much as 50%.

MIXING

MasterTile RSG 705 is of a heavy consistency and should be mechanically mixed.

Using a slow speed electric drill with a paddle attachment, pour the reactor (Part B) into the base tin (Part A) and mix for approximately 2 minutes or until a uniform consistency and colour is obtained. Pour the mixed resin into a forced action mixer (such as a Mixal) and slowly add the filler (Part C) mixing until a lump free, uniform consistency is achieved.

In most applications, the full contents of each component pack should be mixed together. However, where necessary, up to 2kg of the Part C may be omitted to facilitate application at low temperatures, to improve the application properties on floors or to aid application into narrow joints.

PLACING / APPLICATION

The application and use of **MasterTile RSG 705** should be in accordance with the relevant international tiling codes practice.

CURING

Good curing is essential for resin based materials to ensure specified performance. A minimum temperature of 10°C should be maintained during the curing period by the use of additional heating if necessary. Installations using **MasterTile RSG 705** systems can be opened to foot traffic after approximately 24 hours at 20°C. Complete cure is achieved after 72 hours at 20°C.

Tiling

Tiles and paviments should be pressed firmly into place with a twisting motion until properly aligned and bedded. On vertical applications, tiling should begin from the bottom upwards. Ensure that at least 75% of the tile back is in contact with the adhesive. A minimum width of 3mm must be left around tiles for grouting.

Grouting

The grouting operation can be carried out simultaneously with the application of the bedding mortar or after the bedding mortar has set. When proceeding with one continuous operation, apply extra thickness in the bed to allow for material to ooze through the gaps once tiles are pressed onto the adhesive. The grout is then trimmed off and grouted joints are finished with a spatula or palette knife. Where grouting is to be carried out after the bed has set and tiles are permanently fixed in place apply the epoxy grout to the joints by plastic spatula and finish off. Following the grouting operation use a fibrous pad or wet soft cloth to clean off the excess material. This should take place within 15 minutes and care should be exercised not to use excess water or allow water to come into contact with the wet grout. Surplus material must be removed from the face of the tiles before it sets.

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COVERAGE / YIELD

Coverage rates are dependent on the specified tile or paviour dimensions. A 150 x 150 x 20mm tile would require the following:

Bedding	5mm:	5 L / m ²
Jointing	3mm:	0.8 L / m ²
	6mm:	1.7 L / m ²

For 150 x 150 x 4mm the coverage rate would reduce by 80%.

All calculated usages assume constant thickness on a regular substrate. Failure to achieve the required surface will lead to additional material being used.

WATCHPOINTS

Movement joints should be provided in accordance with normal practice.

Chemical resistance

Full chemical resistance chart available on request.

STORAGE AND 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 air-conditioned environment.

Shelf life is 12 months in unopened containers stored as above.

HEALTH AND SAFETY

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 products originating from Master Builders Solutions Dubai, UAE facility are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001 and ISO 14001.

* Properties listed are based on laboratory controlled tests.

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