

MasterTile[®] A 200

Multi use water resistant latex additive and bonding agent for cementitious mortars

DESCRIPTION

MasterTile A 200 is a specially formulated latex additive, for use with Portland cement and sand to form high strength mortars for the installation of ceramic, wall, floor, marble, mosaic or quarry tiles, brick slips, natural or artificial stone.

MasterTile A 200 is a synthetic rubber emulsion containing hydrophilic additives, fungicides and defoaming agents.

TYPICAL APPLICATIONS

MasterTile A 200 is used wherever increased abrasion, water and chemical resistance is required. For swimming pools, dairies, food processing factories, abattoirs, etc.

It may be used to enhance the properties of sand/cement mortars for tiling or added to **MasterTile** range adhesives and grouts.

Used as an additive with **MasterTile** adhesives, a degree of flexibility is imparted, improving the adhesive's suitability for use where road traffic or machine vibration is indicated. Consult your Master Builders Solutions representative for dosage rates.

ADVANTAGES

- Increased adhesion
- Improves flexibility
- Chemical resistance
- Resistance to impact and thermal shock
- Water resistant
- Economical
- Non-toxic

PACKAGING

MasterTile A 200 is available in 18 L pails and 210 L drums.

TYPICAL PROPERTIES

3:1 sand cement mortar modified with **MasterTile A 200**:

Appearance	High viscosity white liquid
Specific gravity	1.01 at 20°C
Compressive strength (dependent on quality of sand utilised) ASTM C109	>40 N/mm ²
Tensile strength ASTM C307	6.5 N/mm ²
Flexural strength ASTM C580	13 N/mm ²
Adhesion	Excellent to concrete, brick, steel, glass, marble, ceramics, etc.
Coefficient of thermal expansion	
-20 to + 20°C	12.8 x 10 ⁻⁶
+20 to + 60°C	12.9 x 10 ⁻⁶
Shrinkage during cure	0.01%
Water absorption BS 1881	<2%
Pot life of mixed mortar	Approx. 3 h at 35°C
Toxicity	MasterTile A 200 modified mixes are non-toxic after cure and can be safely used in conjunction with potable water.
Pull off test BS 1881 Part 207 LOK Test	>1.5 N/mm ²

Note: values given are those achieved under controlled conditions with cement and sands of known quality. Different results may be obtained under site conditions.

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APPLICATION GUIDELINES

SURFACE PREPARATION

As with all bonding materials surface preparation is of paramount importance. Remove all laitance, oil, grease, mould oil, curing compound, leaving an open textured surface. Damp down the surface prior to application of **MasterTile A 200** modified mortars, ensuring surface is damp, but no free water is visible.

MIXING

All mixing should be carried out in a forced action mixer although hand mixing is acceptable where the total weight of mix does not exceed 25 kg. Charge the mixer with the correct quantity of sand and cement, and premix for one minute. Pour in the desired quantity of **MasterTile A 200** (premixed with water if necessary) and mix for 3 minutes. Owing to the strong plasticising action of **MasterTile A 200** care should be taken to ensure prolonged mixing does not occur. Material will remain workable for at least 3 hours at 35°C. Where possible protect mixed material from wind, or direct sun.

PLACING / APPLICATION

Apply to surface using notched trowel technique. Working in areas of approximately 1 metre at a time to avoid skinning of the adhesive. Set dry tiles in bed of mortar, and slightly twist to ensure good adhesion. When tiles are aligned in final position lightly tap using a wooden float. Allow tiles to set for 24 hours before grouting. Alternatively, especially when tile fixing in permanently wet conditions, or fixing heavy decorative cladding, solid bed fixing is recommended. Apply solid bed to required depth, and "push" the tiles into place. Ensure that the ribs on the back of the tiles are filled in using buttering techniques. This will ensure 100% contact of adhesive.

WATCHPOINTS

EXPANSION JOINTS

Wherever tiles are being laid over existing concrete surfaces it is important that expansion joints in the subfloor or background are carried through the **MasterTile A 200** modified mortar. This can be done by fitting a temporary timber batten wrapped in one layer of polyethylene.

Minimum width of expansion joints should be 6.5mm. Seal the joint after tiling using Backer Rod followed by **MasterSeal 470**.

MIX DESIGN

THIN BED FIXING OF WALL AND FLOOR TILES

- 50 kg of cement (fresh).
- 50 kg medium grade sand.
- **MasterTile A 200** 10 L.
- Water - It is normally found that a 1 / 1 dilution of **MasterTile A 200** with water will prove suitable.

Yield approximately 50 L of mortar. Materials should be mixed until a thick paste is formed.

THICK BED FIXING

- Fresh cement 50 kg.
- 150 kg of medium grade sand.
- **MasterTile A 200** 10 L.

It may be necessary to add water to achieve the desired consistency dependant upon type of sand utilised.

Yield approximately 100 L of mortar.

Screed to be bonded or un-bonded as per BS 8204-1.

Slurry bond to slab
2:1:1 cement: **MasterTile A 200**: water

To minimise the risk of moisture staining when bedding natural stone, use PCI Carraflott NT.

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THICK-BED, SEMI-DRY MIX SYSTEM

Screed mix design 1:4/1:5
 Screed aggregate ideally even distribution of 0-8 mm clean, dry, sharp sand (Screed thicknesses >50mm replace 15% aggregate with 8-10 mm light concrete aggregate).
 Per 50kg bag of Cement 2.5 L of **MasterTile A 200** + Approximately 10-15 L of clean water depending on screed moisture requirements.

GROUTING

MasterTile A 200 can be utilised to produce a waterproof and chemically resistant tile grout for floor and wall tiles in swimming pools, abattoirs, animal houses, dairy farms, etc.

The proportion of sand to cement will vary with the width of joint to be grouted.

Recommended mix designs for tile grouts are as follows:

	Fine sand	Cement	MasterTile A 200	Yield
up to 3 mm	50 kg	50 kg	10 L	0.05 m ³
up to 12 mm	100 kg	50 kg	10 L	0.075 m ³
over 12 mm	150 kg	50 kg	10 L	0.10 m ³

STORAGE AND SHELF LIFE

Store under cover, out of direct sunlight and protect from extremes of temperature.
 The shelf life is 12 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions Technical Services Department.

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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NOTE

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