

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, slip brick, natural or artificial stone.

PRIMARY USES

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 litre pails and 210 litre drums.

COMPOSITION

A synthetic rubber emulsion containing hydrophilic additives, fungicides and defoaming agents.

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 utilized):	40N/mm ²
Tensile strength:	6.5N/mm ²
Flexural strength:	13 N/mm ²
Shear strength:	6 N/mm ²
Freeze thaw resistance:	Excellent
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%
Resistance to water at -3 m head:	No water penetration.
Water absorption BS 1881:	< 2%
Water vapour permeability:	Reduced by 96%
Pot life of mixed mortar:	Approx. 3 hours at 35°C
Toxicity:	MasterTile A 200 modified mixes are non-toxic after cure, and can be safely used in conjunction with potable water.
Chemical resistance:	Excellent to alkalis, dilute acids, milk, sewage effluent, mineral oils, etc.

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

APPLICATION PROCEDURE

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 25kg. 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 plasticizing 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.

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 litres.
- Water - It is normally found that a 1 / 1 dilution of **MasterTile A 200** with water will prove suitable.

Yield approximately 50 litres 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 litres.

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

Yield approximately 100 litres of mortar.

Screed to be bonded or un-bonded as per BS8204-1.

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

To minimize 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 0-8mm clean, dry, sharp sand (Screed thicknesses >50mm replace 15% aggregate with 8-10mm light concrete aggregate).

Per 50kg bag of Cement 2.5 litres of **MasterTile A 200** + Approximately 10-15 Litres of clean water depending on screed moisture requirements.

GROUTING

MasterTile A 200 can be utilized to produced 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:-

Joint size	Fine sand	Cement	MasterTile A 200	Yield
up to 3mm	50kg	50kg	10 litres	0.05m ³
up to 12mm	100kg	50kg	10 litres	0.05m ³
over 12mm	150kg	50kg	10 litres	0.05m ³

STORAGE

Store under cover, out of direct sunlight and protect from extremes of temperature.

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's Technical Services Department.

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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