

MasterTop 1230

Self-smoothing solvent free, epoxy overlay system for concrete floors

MATERIAL DESCRIPTION

MasterTop 1230 is a single-coloured, self-smoothing, solvent free, epoxy overlay system designed to provide continuous protection for concrete floors at thicknesses of between 2.0- 4.0mm. For greater thicknesses contact Master Builders Solutions Technical department. The cured material produces a dense, colourful, glossy surface.

PRIMARY USES

MasterTop 1230 has excellent wear and abrasion resistance to floors subjected to high volume traffic.

The smooth, ultra-dense and high gloss finish is ideal for situations requiring a hygienic, easily cleaned surface.

The product offers good general resistance to a broad spectrum of chemical corrosives, but as in all cases of chemical exposure a full analysis of operating conditions is required, followed by reference to chemical resistance data, to ensure product suitability.

MasterTop 1230 may be applied in the following industries: NB This gives examples only and does not constitute a full and comprehensive list. For further information on application possibilities contact Master Builders Solutions SA.

- Food production and processing.
- Beverage production – including soft drink manufacturing.
- Pharmaceutical areas, laboratories, clean rooms.
- Engineering workshops and assembly lines.
- Showrooms, demonstration areas.
- Industrial and commercial cold kitchens.
- Retail.
- Schools, hospitals and hotels.

ADVANTAGES

- Excellent wear and abrasion resistance.
- Easily applied.
- Smooth high gloss finish for hygienic applications.
- Easily cleaned.
- Good general chemical resistance.
- Colourful - improves the working environment.

PACKAGING

MasterTop 1230 is supplied as a 46kg multi component pack (including colour pack).

Base = 10.5kg

Reactor = 4.5kg

Aggregate = 30.6kg

Pigment pack = 0.4kg

HYGIENE

Taint tests carried out on **MasterTop 1230** at the Leatherhead Food Research Association under artificially severe conditions showed that the risks of tainting foodstuffs are minimal during and after complete cure.

TYPICAL PHYSICAL PROPERTIES*

Laboratory tests carried out at 25°C	
Pot Life	35 mins
Curing time	15 hours
Compressive strength 7 days ASTM C579-93	>85 N/mm ²
Density of mixed material	1.79kg/m ³
Flexural strength BS 6319 Part 3 / ASTM C580	35 N/mm ²
Tensile strength BS 6319 Part 7 / ASTM C307	20 N/mm ²
Abrasion resistance ASTM D4060 (CS17 Wheel, 1000 cycles with 1kg wt)	Loss of mass 50mg
Water absorption ASTM C413	<0.05%
Impact resistance EN ISO 6272-1: 2011 - 2 meters with 1.5kg	Passes

If required **MasterTop 1230** can be overcoated with **MasterSeal TC 257**, **MasterSeal TC 258** and **MasterTop TC 941** containing **Xolutec**. Refer to the method statement for coverages and application details.

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GUIDE TO APPLICATION

Surface Preparation:

The preferred method for surface preparation of concrete is captive blasting, which gives a well-prepared laitance free, vacuum cleaned surface.

Prior to application **MasterTop 1230** should be stored under cover in an air-conditioned environment and protected from extremes of temperature which may cause inconsistent workability, finish and cure times for the mixed material.

Priming and Sealing:

Damaged or deeply pitted areas can be repaired and levelled using **MasterTop 1230** filled out, if required, with additional aggregate.

It is essential to prime/seal the concrete surface prior to the application of **MasterTop 1230**, to prevent air from the substrate rising through the **MasterTop 1230** while it sets.

Prime/Seal the concrete with **MasterTop 1200** diluted with 0.5 litres Xylene, if required or permissible.

Pour the base and reactor components into a suitable mixing vessel and add the Xylene. Using a slow speed drill and paddle, mix the components for a minimum of 1 minute, or until all striations have disappeared.

Apply the mixed primer/sealer to the prepared dust free surface with a medium pile roller, at the rate of 6- 8m² per litre depending on the surface profile of the concrete.

If the concrete is very absorbent, a single application may not be sufficient and a second coat may be required to ensure the surface is completely sealed.

Allow the primer/sealer to become tack free before applying the **MasterTop 1230**.

Mixing:

Pour the contents of the colour pack into the base (PTA) and then mix the components together using a slow speed (300 – 600 rpm) handheld mixer fitted with a suitable mixing paddle; Collomix DLX mixing head or similar. Mix for no less than 1 minute, before pouring this into a clean large size mixing bucket (30 L) and then adding the **MasterTop 1230** filler (PTC) whilst continuing to mix until a uniform colour is obtained, free of streaks or lumps of unmixed filler (minimum 2 minutes). Remix the pre-mixed base (PTA) + colour pack + filler (PTC) for 30 seconds and then add the reactor (PTB) and continue to mix until a streak free even colour is reached and there are no visible lumps of filler (PTC), etc.

Placing and Application:

Pour the mixed material onto the primed and sealed surface and spread to the required thickness using a pin screed, notched trowel or steel float. As soon as the material has been spread to the required level, the applied material should be rolled with a spiked roller to release entrapped air and remove trowel marks. Rolling should be continued until all air is released and a uniform colour is obtained.

The operator should always wear spiked shoes when using the spiked roller so that he can walk in the wet material. Rolling should cease before the **MasterTop 1230** begins to gel.

YIELD

A 46kg kit of **MasterTop 1230** will yield 25.7 litres of mixed material.

MasterTop 1230 systems are supplied in pre-weighed packs which should not be split or divided. It is important to use complete packs.

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EQUIPMENT

- Vacuum recovery shot blasting machine
- Masking tape / polythene sheets
- Heaters for cold weather work
- Trowels
- Slow speed drill with suitable paddle
- Brushes or short nap hair rollers
- Industrial vacuum
- Scarifier (Errut / Von Arx)
- Grinder
- Overalls
- Lighting
- Spiked roller
- Spiked shoes
- Pin screed

EQUIPMENT CARE

Remove **MasterTop 1230** from tools and equipment whilst still wet using Xylene. Cured resin will require mechanical removal.

STORAGE AND SHELF LIFE

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction and protect from extremes of temperatures. In tropical climates the product must be stored in an air-conditioned environment. The shelf life is 12 months when stored as above.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

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QUALITY AND RESPONSIBLE CARE

All products originating from MB Construction Chemicals Solutions South Africa (Pty) Ltd are manufactured under a management system independently certified to conform to the requirements of the quality standards ISO 9001, environmental and occupational health and safety standards.

* Properties listed are based on laboratory controlled tests.

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