

MasterTop[®] 1230

Self smoothing solvent free, epoxy overlay system for concrete floors

DESCRIPTION

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

The product has also been successfully applied to glazed and terrazzo tiles, steel and timber. For applications other than to concrete, please contact your Master Builders Solutions representative.

TYPICAL APPLICATIONS

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 Construction Chemicals LLC.

- 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 46 kg multi component pack (including colour pack).

TYPICAL PROPERTIES*

Laboratory tests carried out at 25°C	
Pot life	35 min
Cure time	15 h
Compressive strength 7 days ASTM C579-93	>85 N/mm ²
Density of mixed material	1.79 kg/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 943** (innovative scratch resistance topcoat).

Refer to the method statement for coverages and application details.

APPLICATION GUIDELINES

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.

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PRIMING / 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 L a suitable thinner (Xylene / MEK / Acetone) if required or permissible.

Pour the base (PTA) and reactor (PTB) components into a suitable mixing vessel and add the thinner (Xylene / MEK / Acetone). 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 6-8 m² / L 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) hand held 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.

Always keep the mixing time the same for all batches, to ensure a uniform colour when the product is applied.

PLACING / 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.

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

CLEANING

Remove **MasterTop 1230** from tools and equipment whilst still wet using a suitable thinner (Xylene / MEK / Acetone). Cured resin will require mechanical removal.

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COVERAGE / YIELD

A 46 kg unit of **MasterTop 1230** will yield 25.7 L of mixed material.

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

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.

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 (which can also be tainted with vapour until products is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use.

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.

® = Registered trademark of the MBCC Group in many countries.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions 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

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

Master Builders Solutions
Construction Chemicals LLC
P.O. Box 37127, Dubai, UAE
Tel: +971 4 8090800
www.master-builders-solutions.com/en-ae



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