

MasterTop 512

Premixed hard-wearing floor topping

MATERIAL DESCRIPTION

A ready to use non-metallic and non-oxidising synthetic mineral aggregate and cementitious product which is applied as a topping onto existing or new concrete slabs as a hard and durable wearing course. At 10-12mm the **MasterTop 512** will afford permanent protection to the floor surface against various industrial chemicals, oils, greases and detergents.

PRIMARY USES

MasterTop 512 is ideal for use on new or existing concrete slabs where medium and heavy-duty traffic is expected and where a non-dusting and durable floor is essential.

TYPICAL APPLICATIONS

- Workshops
- Power stations
- Garages
- Car parks
- Warehouses
- Loading bays
- Factories
- Shipyards
- Aircraft hangars
- Traffic decking (internal & external)
- Helicopter pads
- Car washes

ADVANTAGES

- Premixed and requires only the addition of clean water.
- Can be applied onto new and existing concrete slabs and bays.
- Easily finished by skilled masons or by power float.
- A uniform density and hardness on the surface affords greater impact, abrasion and wear resistance than concrete.
- A non-dusting surface which can be finished as smooth and non-slip.
- Performance of floor is not affected by moisture and standing water.
- Non-oxidising.
- Suitable for internal and external use.

COMPOSITION

MasterTop 512 consists of non-oxidising inert high quality synthetic mineral aggregates, proprietary chemicals and cement.

PACKAGING

MasterTop 512 is available in 25kg bags.

TYPICAL PROPERTIES*

Compressive strength BS 6319 (Part 2)	1 day > 15 N/mm ² 7 days > 35N/mm ² 28 days > 45 N/mm ²
Flexural strength BS 6319 (Part 3)	7.5 N/mm ²
Tensile strength BS 6319 (Part 7)	> 3.5 N/mm ²
Abrasion resistance	Tested in accordance with the principles of ASTM C-944
Bond strengths	>1.5N/mm ² (substrate failure)
Relative density	2,500 kg/m ³
Colour	grey
Chemical resistance	Will resist motor oils, mineral oils, mild acids, salt solutions 10%, sea water, soda solution 25% when cured with the appropriate Master Builders Solutions membrane.

STANDARDS

BS 6319 (Compressive, tensile and flexural strengths).
 ASTM C944 (Abrasion Resistance). DIN 1048 (Permeability).

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APPLICATION PROCEDURE

Surface preparation:

MasterTop 512 surface preparation is of prime importance. It is essential that thorough surface preparation is undertaken to ensure the system develops maximum properties.

For concrete surfaces, remove all grease, oil, dust, laitance, etc. Ensure substrate to receive the topping is sound, cutting back to sound surface (wherever necessary) and making good.

Concrete surfaces should be prepared by captive blasting, grit blasting, high pressure water jetting or scabbling with pointed chisels.

Note: Concrete cured with a conventional curing membrane should have the membrane film removed before application. The exception to this is when **MasterKure 181** has been used.

Priming and Bonding Agent:

Remove dust by means of oil free compressed air and ensure that the surface is dry. Prime with **MasterBrace ADH 1414** ensuring total coverage of the surface.

Mixing and Application:

A forced action Mixal or Creteangle mixer is recommended for mixing MasterTop 512. Pour contents of the bag into mixing bucket and blend for approximately 30 seconds. Thereafter slowly add 2.3-2.4 litres of water per 25kg bag and allow to mix for 3 minutes.

The mixed mortar should exhibit a plastic (low slump) consistency. Evenly spread the material out over the primed surface. Level off with a wooden or aluminium straightedge using 10mm thick battens as thickness guides. A straightedge should be used to systematically tamp and level the **MasterTop 512**. Using a wooden float, press firmly down and float material onto the primed surface ensuring that the material is evenly spread and compacted.

Finishing should be carried out using a steel trowel. If a power float is to be used this should be used when the surface is firm enough to take the weight of foot traffic.

Curing:

Curing should be carried out immediately after the final trowelling operation has been completed. This can be done by either covering with polythene sheets or by the application of curing compound. The use of a curing membrane from the MasterKure range at a rate of 1 litre per 5m² is recommended.

Further advice on the correct selection of curing compounds will be provided by Master Builders Solutions Technical Services Department, as these may differ depending on the type of subsequent treatment to be applied. Protect all surfaces from traffic until the surface has completely hardened (light traffic 24 hours; heavy traffic 72 - 96 hours).

WATCHPOINTS

Proper mixing equipment is essential as material requires 3 minutes of thorough mixing to enable active ingredients to be properly dispersed. Chilled clean water is recommended for hot weather to keep the mixed temperature below 32°C. Curing is essential and should be carried out immediately following final floating.

CONSUMPTION

1 x 25kg bag mixed with 2.3-2.4 litres of chilled clean water will cover approximately 1m² at 10mm thick.

EQUIPMENT CARE

Equipment should be cleaned immediately after use, by water.

STORAGE

Store out of direct sunlight, clear of the ground on pallets protected from rainfall. Avoid excessive compaction.

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SAFETY PRECAUTIONS

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 product is fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal containers after use. For further information refer to the material safety data sheet.

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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* Properties listed are based on laboratory controlled tests.

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