

# MasterTop<sup>®</sup> 1205

## Three component solvent free high build epoxy floor coating

### DESCRIPTION

**MasterTop 1205** is a pigmented, solvent-free, high build epoxy floor coating system designed to offer seamless durable floor protection at applied thicknesses between 0.2-0.4mm.

With the addition of **MasterTop SR 2** or **MasterTop SR 3** (slip resistant aggregates) between coats, anti-slip resistant applications can be achieved in system build-up thicknesses between 0.5-1.0mm.

### TYPICAL APPLICATIONS

**MasterTop 1205** exhibits excellent wear, abrasion and chemical resistance and is suitable for use in a wide variety of industrial and commercial applications. It can be used to provide a surface coating with a high gloss hygienic finish or a slip resistant coating system.

**MasterTop 1205** provides impermeable protection against common oils, greases, lubricants, aviation fuels and hydraulic oils such as Skydrol. As in all corrosive situations, a full analysis of operating and exposure conditions is required, followed by reference to chemical resistance data to ensure product suitability.

**MasterTop 1205** can be used extensively in but is not limited to the following areas of application:

- Chemical manufacturing plants.
- Pharmaceutical and other medical facilities.
- Car production and showroom facilities.
- Aircraft hangers and maintenance areas.
- Warehouses with high density traffic.
- Food and beverage production areas.
- Vehicle movement areas.

### ADVANTAGES

- Excellent wear and abrasion resistance
- Superior chemical resistance
- Smooth high gloss finish for hygienic applications
- Slip resistant finish in trafficable applications
- Easy application by brush, roller or squeegee

### PACKAGING AND COLORS

**MasterTop 1205** is supplied as a 32kg (20 L) multi component pack (including colour pack).

Available in the following standard colours:  
 Light Grey, Dusty Grey, Oxide Red, Brilliant Blue, Dark Green

Other colours can be produced depending upon the quantity and in consultation with Master Builders Solutions Technical Services Department.

### TYPICAL PROPERTIES\*

| Laboratory tests carried out at 25°C |                        |
|--------------------------------------|------------------------|
| Pot life                             | Approx. 35 mins        |
| Initial cure                         | 24 h                   |
| Max. overcoating time                | 36 h                   |
| Final cure                           | 7 days                 |
| Full chemical resistance             | 7 days                 |
| Mixed density                        | Approx. 1.6 kg/L       |
| Max service temperature              | 60°C                   |
| Flexural strength ASTM C580          | 40 N/mm <sup>2</sup>   |
| Tensile strength ASTM C307           | 20 N/mm <sup>2</sup>   |
| Bond strength BS 1881 Part 207       | >1.5 N/mm <sup>2</sup> |

If required **MasterTop 1205** can be overcoated with **MasterSeal TC 257 & MasterSeal TC 258** (smooth and slip-resistant finish) and **MasterTop TC 943** (innovative scratch resistance topcoat).

Refer to the method statement for coverages and application details.

### APPLICATION GUIDELINES

Remove all surface laitance, oil, grease or any defective concrete that will reduce the bond of the **MasterTop 1205**.

The surface to which the **MasterTop 1205** is to be applied must be flat.

Surface irregularities must be ground down or filled out with **MasterTop 2200** or repair materials from **MasterEmaco** range.

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A light etch giving the profile of medium grit sandpaper is the ideal surface for the application of **MasterTop 1205**, this can be achieved by light grit blasting, captive blasting or surface grinding.

After all preparation has been completed, ensure dust is removed from the surface. This is best achieved using an industrial vacuum.

## PRIMING / SEALING

**MasterTop 1205** does not require a priming coat.

## MIXING

Add the entire contents of the **MasterTop 1205** PTA and PTB and **MasterTop Col Pack** and mix the three components for 2 minutes using a slow speed drill (300-400 rpm) fitted with a spiral mixing paddle until all striations have disappeared and a uniform colour is obtained.

## PLACING / APPLICATION

**MasterTop 1205** is a versatile product and can be applied in various application thicknesses from 200 microns to 250 microns per coat giving DFT thickness of 0.4-0.5mm when applied as a two coat system.

To achieve a smooth finish at an application rate of 200 microns per coat use a medium pile roller or suitable paint brush.

For slip resistant finishes, apply the base coat first. This coat can then be scattered with

**MasterTop SR 2** or **MasterTop SR 3** aggregate by completely blinding at approximately 0.6-1.0 kg/m<sup>2</sup>. Apply aggregate to wet base coat. After initial cure (12 hours at 40°C) the excess aggregate should be removed by brushing or vacuuming.

Alternative textures can be obtained by varying the amount of **MasterTop SR 2** or **MasterTop SR 3** broadcast on to the base / sealer coat.

The top coat can now be applied. Depending on the surface profile, type and density of the **MasterTop SR 2** or **MasterTop SR 3** used, the top coat may consume more material than the base coat to achieve a fully sealed surface. The top coat must be applied within the maximum over coating time period i.e. 36 hours at 25°C or 24 hours at 40°C.

Prior to application, **MasterTop 1205** should be stored undercover and protected from extremes of temperature in an air-conditioned environment immediately prior to application.

**Note:** In cold weather or when the ambient temperature is below 25°C, contact Technical Department for application advice.

## EXPANSION JOINTS

Expansion joints in the existing substrate floor must continue through the **MasterTop 1205** coating. Contact your local Master Builders Solutions representative for advise on Master Builders Solutions sealants.

## CHEMICAL RESISTANCE

Fully cured **MasterTop 1205** samples have been tested for chemical resistance to the following chemicals for 7 days @ 25°C:

|                          |                           |
|--------------------------|---------------------------|
| Lactic Acid 10%          | Resistant (colour change) |
| Citric Acid 10%          | Resistant                 |
| Acetic Acid 10%          | Resistant                 |
| Hydrochloric Acid 18%    | Resistant (colour change) |
| Sulphuric Acid 50%       | Resistant (colour change) |
| Nitric Acid 20%          | Resistant (colour change) |
| Sodium Hydroxide 50%     | Resistant                 |
| Ammonia (0.880) 10%      | Resistant                 |
| Petrol                   | Resistant                 |
| Mineral Oil              | Resistant                 |
| Butanol                  | Resistant                 |
| Skydrol                  | Resistant                 |
| Saturated Sugar Solution | Resistant                 |
| Saturated Urea Solution  | Resistant                 |

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## CLEANING

Remove uncured **MasterTop 1205** from tools and equipment using a suitable thinner (Xylene / MEK / Acetone). If **MasterTop 1205** has cured, then it can only be removed by mechanical means.

## COVERAGE / YIELD

### Smooth Finish

20 L pack of **MasterTop 1205** covers 100 m<sup>2</sup> at a dft of 200 microns (2 coats required), i.e. 0.2 L/m<sup>2</sup>/coat

### Slip Resistant Finish

20 L pack of **MasterTop 1205** covers 80 m<sup>2</sup> at a dft of 250 microns (2 coats required), i.e. 0.25 L/m<sup>2</sup>/coat

**MasterTop SR 2** or **MasterTop SR 3** approx. 0.6-1.0 kg/m<sup>2</sup>.

Above coverages do not allow for any wastage and coverages may vary depending on the porosity and profile of the concrete substrate.

## STORAGE AND SHELF LIFE

Store out of direct sunlight, clear of the ground and on pallets. Protect from rainfall. Avoid excessive compaction and protect from extremes of temperature. 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 could be tainted during the curing/ drying phase of the product). Treat splashes to eyes and skin immediately. If accidentally ingested, seek medical attention. Reseal the 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.

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