

# MasterTop<sup>®</sup> 1305

Two component solvent free high build flexible epoxy polyurethane floor coating

## DESCRIPTION

**MasterTop 1305** is a pigmented, solvent-free, high build epoxy polyurethane floor and wall coating system designed to offer seamless durable floor protection at applied thicknesses between 0.2 to 0.50mm.

With the addition of **MASTERTOP<sup>®</sup> SR No. 3** (slip resistant aggregates) between coats, anti-slip resistant applications can be achieved in system build-up thicknesses between 0.50 to 2.0mm.

## PRIMARY USES

**MasterTop 1305** 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 1305** 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 1305** can be used extensively in but is not limited to the following areas of application:

- Power stations and dike wall areas
- 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.
- Car parks
- Tank farm, wall and floor protection.
- Workshops and maintenance facilities.

## FEATURES AND BENEFITS

- No primer required.
- Economical.
- High build flexible coating.
- Non toxic, Non-solvented .
- Abrasion and UV resistant
- Long-term corrosion protection.
- Pre-weighed components.
- Easy application: brush, roller or spray.
- Excellent chemical resistance to aqueous media.

- Seamless finish (smooth gloss finish for hygienic application).
- Resistant to bacterial growth.
- Slip resistant finish for traffic areas.
- Value added system (impermeable and waterproof) suitable for marine and offshore areas.
- Can be applied on Concrete/Steel and other cementitious and epoxy substrates

## PACKAGING

**MasterTop 1305** is supplied in 10 litre packs.

## TYPICAL PROPERTIES

Pot life	30°C 30 mins
Tack free time	approx. 4 hours at 35°C
Initial cure	12 hours at 30°C
Final cure	4 days at 30°C

## PHYSICAL PROPERTIES

Bond strength to Concrete: (PTS.0341)	> 3Mpa (concrete failure)
Water Absorption:	Nil % (ASTM C413-88)
Modulus of elasticity:	1.18 PSI x 10 <sup>5</sup>
Solids:	100%
Tensile Strength:	9.6 N/mm <sup>2</sup> (BS 2782).
Elongation at break:	25-30% (BS 2782)
Adhesion strength:	2.2 N/mm <sup>2</sup>
Specific gravity:	1.62 gm/cm <sup>3</sup> at 25°C

## COLOR

Available in standard colors and with color matching or RAL/ BS Colors depending on quantity required. Contact your Saudi Master Builders Solutions representative for more details.

## GUIDE TO APPLICATION

Remove all surface laitance, oil, grease or any defective concrete that will reduce the bond of the **MASTERTOP<sup>®</sup> 1305**.

The surface to which the **MasterTop 1305** is to be applied must be flat and roughened.

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

A light etch giving the profile of medium grit sandpaper is the ideal surface for the application of MasterTop 1305, 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 CONCRETE SURFACE

Due to high bonding efficiency, MasterTop 1305 does not require primer.

## STEEL

All previous surface treatments should be removed taking the surface back to base metal. The base metal should be abraded and preferably shot blasted with grit, steel shot or proprietary abrasive. Where shot blasting is impractical pre-treatment may be carried out with pneumatic de-scaling guns, tap hammers, rotary wire brushes or by flame scaling. Cleaning with solvent or a strong detergent is advisable to ensure surface is free from grease etc. Do not allow surface to re-oxidize before application of MasterTop 1305.

## MIXING

Add the entire contents of the reactor container into the base container and mix the two components for 2 minutes using a slow speed drill fitted with a special mixing head until all striations have disappeared and a uniform color is obtained.

## APPLICATION

MasterTop 1305 is a versatile product and can be applied in various application thicknesses from 150 microns to 300 microns per coat giving DFT thickness of 0.3 to 0.6mm when applied as a two coat system.

To achieve a smooth finish at application between 150 microns to 300 microns per coat, a short hair roller or brush is suitable.

For slip resistant finishes, apply the base coat first. This coat can then be scattered with MasterTop SR no.3 aggregate by completely blinding at approximately

0.5-1.0kg/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 no.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 no.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 1305** should be stored undercover and protected from extremes of temperature

## EXPANSION JOINTS

Expansion joints in the existing substrate floor must continue through the **MasterTop 1305** coating. Contact your local Master Builders Solutions representative for advice on Master Builders Solutions sealants.

## CHEMICAL REISTANCE

**MasterTop 1305** has excellent resistance to the following chemicals.

- Formaldehyde, 40% solution
- Sulphuric Acid, 20% solution
- Hydrochloric Acid, 20% solution
- Hydrochloric Acid, 10% solution
- Lactic Acid, 50% solution
- Nitric Acid, 20% solution
- Phosphoric acid 15% solution
- Sodium Hydroxide, 50% solution
- Diesel fuel.
- Wine
- Tap/ Sea/ Sewage water
- Aviation Hydraulic fuels (Skydrol)
- Vegetable Oils

## COVERAGE

Coverage depends on substrate condition and as per project requirements. However as a guide line 0.2 litre/m<sup>2</sup> is required to achieve a 200 microns dry film thickness.

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## EQUIPMENT CARE

Remove uncured MasterTop 1305 from tools and equipment using MasterTop THN 2. If MasterTop 1305 has cured then it can only be removed by mechanical means.

## STORAGE & SHELF LIFE

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 containers after use.

## 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 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 containers after use.

## 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.

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

## CONTACT

Should you require any further information, please do not hesitate to contact us:

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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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