

# MasterTop® 1230

Self-smoothing, solvent free epoxy floor topping for clean rooms

## DESCRIPTION

**MasterTop 1230** is a four component, self-smoothing, solvent free, epoxy overlay system, formulated to protect the floor from common chemicals and tire traffic, while maintaining an easily cleanable, hygienic surface when applied at thickness of 2-3 mm.

## RECOMMENDED USES

**MasterTop 1230** is recommended for re-topping worn level toppings or to provide a self-smoothing surface over flat floors. Application areas include:

- Pharmaceutical and other medical laboratory situations or clean room areas
- Engineering – including car production and aircraft maintenance units
- Automobile servicing and assembly areas
- Light Industrial plants
- High stack warehouses

## FEATURES AND BENEFITS

- **Durable** – high abrasion resistance even in tough conditions
- **Chemically resistant** -Resistant to general chemicals and spillages
- **Easy to maintain** - Seamless hygienic, pore free surface.

## PROPERTIES

Mixed density	: 1.7 ± 0.05 gm/cc
Pot Life	: 45 mins at 25°C 15 mins at 40°C
Setting time/ foot traffic	: 24 hours at 25°C
Vehicular traffic	: 48 hours at 25°C
Chemical Resistance	: 7 Days
Compressive strength (EN ISO 604)	: 25 MPa at 1 day 50 MPa at 7 days
Flexural strength (EN ISO 178)	: 15 MPa at 7 days
Tensile strength (EN ISO 527)	: 7 MPa at 7 days
Abrasion Resistance (ASTM D4060, 1000gm, 1000 cycles CS17 wheel)	: 50 mg
Hardness, Shore D (ASTM D 2240)	: 75-80

Adhesive bond strength to concrete (ASTM D4541)	: > 1.5 MPa (concrete failure)
Dielectric Constant (ASTM D 150-18)	: 5.0 (±5%)

## C9CHEMICAL RESISTANCE

To confirm suitable chemical resistance, discuss with Master Builders Solutions representative. Pay attention to aggressive cleaning cycles and temperature of both chemicals and cleaning regimes.

## APPLICATION

The floor receiving **MasterTop 1230** must be sound, dry, fine-grained and load bearing, free of laitance, loose and brittle particles and substances which impair adhesion such as oil, grease, rubber skid marks, paint or other contaminants. The bond strength of the substrate must be at least 1.5 MPa. Ensure that the compressive strength of floor concrete is at least 25MPa and that floor slabs directly in contact with the ground have a proper vapour barrier installed and the moisture content of substrate shall not be higher than 4% throughout.

### Temperature Requirements

- Substrate temperatures: 15°C – 35°C
- Material temperatures: 15°C – 30°C

Very low or very hot temperatures will make application more difficult and careful consideration should be given to storage of materials. In the cold weather conditions, pre-condition materials by keeping it in a heated room. In hot weather conditions, some form of air-conditioned storage is required. Pre-conditioned materials at 20-25°C will reduce the possibilities of flash/slow setting and other defects.

### Surface preparation

**MasterTop 1230** is designed to be laid on floor with flat and smooth surface, such as previously laid resin floor topping that has worn out or on well-laid and finished underlayment.

Ensure the substrate is clean, strong, flat and smooth. Remove cement laitance and weak concrete by shot blasting, scarifying or grinding followed by vacuum cleaning.

Repair damaged or deeply pitted areas using **MasterTop 1230** filled out with additional aggregate.

### Priming

It is essential to seal the concrete surface prior to the application of MasterTop 1230. Apply MasterTop P 2525 at 4-6m<sup>2</sup>/kg depending on the flatness of the substrate. Use a medium nap roller

# MasterTop<sup>®</sup> 1230

ensuring a complete coverage without holidays. If after drying, the surface appears patchy due to high absorption, recoat the primer. Allow the primer to dry before commencing top coat application of MasterTop 1230.

## Body coat

### Mixing

All mixing should be done mechanically using a slow speed drilling machine fitted with a Circular stirrer/Helical Stirrer/ribbon paddle, to ensure that the mixing head is well within the material during mixing. Add color paste completely to the MasterTop BC 314 Part A in its container and mix well. Pour the MasterTop BC 314 Part B into the MasterTop BC 314 Part A container and mix for a minute. keeping the mixer running slowly add the MasterTop F20 filler & mix further for 2 mins, occasionally scraping the side and bottom corner of container. Ensure the final mix is lump free, homogeneous and even in color. Mixing of large mixes (multiples of the above kits) may be done in a forced action mixer. Ensure all containers are completely empty before disposal.

Keep the mixing time the same for all batches to ensure a uniform color when the product is applied.

### Placing

While applying MasterTop 1230 applicators must wear spiked shoes during application.

Pour the mixed material onto the primed and sealed surface, and spread to min. 2mm thickness using a pin screed or a 4mm notched trowel. Immediately roll the spread material with a spiked roller to release entrapped air and remove trowel marks. Ensure application is a continuous operation and laying is within 5 minutes of mixing and spike rolled within 5 minutes of laying.

### CURING

Waiting times between MasterSeal P 2525 and MasterTop 1230 should not be less than 16 hours and not more than 24 hours. Where extended over coating times are envisaged then the cured primer

reactivated using mechanical techniques and solvent wiping.

MasterTop 1230 should be protected from traffic and spillage for at least 48 hours. Full chemical and mechanical resistance is obtained after 7 days.

### ESTIMATING DATA

A 22.70kg unit of **MasterTop 1230** is sufficient for 6.67m<sup>2</sup> at the recommended 2mm thickness on fair-faced primed substrate

### PACKAGING

**MasterTop 1230** is supplied in 22.70 kg pack consisting of:

<b>MasterTop BC 314 Part A</b>	5.0 Kg
<b>MasterTop BC 314 Part B</b>	3.25 Kg
<b>MasterTop F20</b>	14.0 Kg
<b>Color pack</b>	0.45 Kg

### SHELF LIFE

**MasterTop 1230** components may be stored in tightly sealed original containers for 12 months in controlled environments, between 10°C-30°C.

### PRECAUTIONS

It is highly recommended to use necessary PPE (Gloves, mask etc.,) during installation of the product. In case of Incidents of direct inhalation, causing dizziness/giddiness, loss of consciousness, contact with eyes etc, seek immediate medical advice. The requirements may vary depending on the application areas. Please ensure to have proper ventilation while working in confined areas. Contact Master Builders Solutions representative in case you need further details or refer to the material safety datasheet of the product to know more.

**MasterTop1230/02/06/2023**

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