

# MasterTop<sup>®</sup> 538

## Industrial grade self-smoothing cementitious floor overlay

### DESCRIPTION

**MasterTop 538** is a self-smoothing, cementitious, non-structural, floor overlay for re-levelling and refurbishing cementitious based floor slabs. **MasterTop 538** can be laid at thicknesses from 4mm-40mm when hand applied or 6mm-40mm when pump applied. **MasterTop 538** simply requires coating with a resin-based seal coat.

### TYPICAL APPLICATIONS

- Finishing rough undulating floors
- Levelling up floors
- Refurbishing old floors
- Fastrack industrial refurbishment
- Not suitable for exterior applications or where moisture is present

Note: Use **MasterTop 522** / **MasterTop 523** for external application.

### ADVANTAGES

- Highly fluid and pumpable for fast installation
- Rapid strength gain
- Ready for foot traffic after 3-4 hours
- Return to service in 24 hours
- Rapid cure
- Self-smoothing
- Good compressive strength

### PACKAGING

**MasterTop 538** is available in 25 kg bags.

### TYPICAL PROPERTIES\*

	1 day	28 days
Compressive strength BS EN 13892 Part 1 & 2	15 N/mm <sup>2</sup>	35 N/mm <sup>2</sup>
Flexural strength BS EN 13892 Part 1 & 2	>4 N/mm <sup>2</sup>	>6 N/mm <sup>2</sup>
Abrasion Resistance (wt loss in gms) by Taber Abraser 1000 cycles of 1kg CS 17 wheel	0.24 gms	
Work time @ 23°C	30 min	
Setting times @ 25°C		
– Initial	90 – 110 min	
– Final	100 – 120 min	
Foot traffic @ 23°C 50% RH	approx. 3 h	
Drying shrinkage @ 7 days (Master Builders Solutions Test Method)	<300 microstrain	
Pull off bond strength	1.0 MPa	

### APPLICATION GUIDELINES

Substrate must be clean and free of oil, sealers, curing compounds, paint, polymer coatings, dust or other foreign (contaminating) matter. Remove all weak or broken pieces of concrete. If necessary, employ mechanical cleaning methods and equipment. If sealers, paint, polymer coatings or curing compounds are present on concrete substrate, remove with mechanical shot blasting equipment.

**MasterTop 538** is best applied where the application temperature is between 5°C and 35°C. Outside this range, please refer to your local Master Builders Solutions Construction Chemicals Technical Representative.

Voids and cracks (water pipes, holes, drainage pipes etc) should be filled to prevent seepage through to lower levels. Consult with your local Master Builders Solutions Construction Chemicals Technical Representative for product recommendations. Note: Joints should always be cut in toppings directly above those in the base slab to avoid random cracking.

# MasterTop<sup>®</sup> 538

## PRIMING

The substrate shall be saturated with **MasterTile P 302** and mixed with water 1:1. Use at least 0.2 L (approx.) of the primer for the initial priming (1:1). Allow to dry until a transparent film has been formed. Absorbent substrates should be primed twice. The second coat approx. 0.07 L / m<sup>2</sup>.

## MIXING

Mechanical mixing is required for **MasterTop 538**. For small areas, a slow speed stirrer of not more than 600 rpm fitted with a helical paddle, is suitable. Mixing time is 3 minutes.

Place the required quantity of water into the mixing vessel. Whilst mixing, slowly add the powder to the water within 2 minutes then mix for a further 1 minute. Allow mixed **MasterTop 538** to stand for 3 minutes and then remix prior to application. Use chilled water at high temperatures for longer application time.

For improved efficiency and continuous production of **MasterTop 538**, it is recommended to use at least two mixing buckets.

For larger jobs, the use of a mechanical mixer/pump unit is recommended. Refer to your local Master Builders Solutions Construction Chemicals Technical Representative for suitable machines.

## PLACING / APPLICATION

Pour mixture over substrate or pump through a suitable pump to desired thickness.

Whether pouring from a mixing vessel or using a mechanical mixer with an application hose, the discharge point should be approximately 200 mm from the floor to prevent splashing and air entrapment.

Progress should be steady and even. Application should take place continuously into the preceding

wet material to ensure even thickness and flow. Do not make new edges and 'fill in' the middle.

The fresh wet topping can be rolled immediately with a suitable long spiked roller to release all air retained within the underlayment. Do not roll material that has been applied for more than 2-3 minutes.

## CURING

**MasterTop 538** is self-curing, but as with all cementitious products in hot weather, take adequate measures to protect it from exposure to direct sunlight and hot winds. DO NOT use water spray or liquid membrane curing compounds as these may affect the surface texture or prevent bonding of subsequent adhesives used with floor coverings.

## CLEANING

Tools should be cleaned with water before the material hardens. Hardened material will need to be mechanically removed.

## COVERAGE / YIELD

A 25 kg bag of **MasterTop 538** mixed with 5 L of water yields 14.1 L.

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## STORAGE AND SHELF LIFE

**MasterTop 538** can be stored in tightly sealed original bags. Shelf life is 6 months if kept dry and at a moderate temperature.

## HEALTH AND SAFETY

**MasterTop 538** is not toxic, but as with other products containing cement it has an alkaline nature and thus can be irritating to skin and eyes. Wear simple dust masks and gloves when handling. Keep out of reach of children. Wash off splashes of material with clean water. If irritation persists, seek medical advice.

Refer to Material Safety Data Sheet for further information.

## 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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