

# MASTERTOP<sup>®</sup> 538

## Industrial grade self-smoothing cementitious floor overlay

### Description

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

### Recommended for

- Finishing rough undulating floors
- Levelling up floors
- Refurbishing old floors
- Fastrack industrial refurbishment

### Features and benefits

- 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<sup>®</sup> 538 is available in 25kg bags.

### \*Performance data (typical) @ 25°C

	1 day	28 days
Compressive strength (ASTM C-579)	15N/mm <sup>2</sup>	35N/mm <sup>2</sup>
Flexural strength ASTM C-580	>4N/mm <sup>2</sup>	>6N/mm <sup>2</sup>
Tensile strength (28 days) ASTM C-307	>4N/mm <sup>2</sup>	
Abrasion Resistance (wt loss in gms) by Taber Abraser 1000 cycles of 1kg CS 17 wheel	0.24gms	
Work time @ 23°C	30 mins	
Setting times @ 25°C – Initial	90 – 110mins	
– Final	100 – 120mins	
Foot traffic @ 23°C 50% RH	approx. 3 hours	
Drying shrinkage @ 7 days (BASF Test Method)	<300 microstrain	
Pull off bond strength	1.0MPa	

### Application directions

#### Substrate condition

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 shotblasting equipment.

MASTERTOP<sup>®</sup> 538 is best applied where the application temperature is between 5°C and 35°C. Outside this range, please refer to your local BASF Construction Chemicals Technical Representative.

Voids and cracks (water pipes, holes, drainage pipes etc) should be filled to prevent seepage



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through to lower levels. Consult with your local BASF 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.

## Priming

The substrate shall be saturated with PCI PRIMER GISOGRUND and mixed with water 1:1. Use at least 0.2 litres (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 litres / m<sup>2</sup>.

## Mixing

Mechanical mixing is required for MASTERTOP<sup>®</sup> 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<sup>®</sup> 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<sup>®</sup> 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 BASF Construction Chemicals Technical Representative for suitable machines.

## Method of use

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 200mm 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<sup>®</sup> 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.



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## Coverage

A 25kg bag of MASTERTOP<sup>®</sup> 538 mixed with 5 litres of water yields 14.1 litres.

## Cleaning

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

## Shelf life

MASTERTOP<sup>®</sup> 538 can be stored in tightly sealed original bags for 6 months if kept dry and at a moderate temperature.

## Precautions

MASTERTOP<sup>®</sup> 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.

## Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local BASF representative.

BASF reserves the right to have the true cause of any difficulty determined by accepted test methods.

## Quality and care

All products originating from BASF's 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, ISO 14001 and OHSAS 18001.

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\* Properties listed are based on laboratory controlled tests.

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**As all BASF technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.**

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