

MASTERTOP[®] 540 (Zemtec)

Self-levelling cementitious floor overlay

DESCRIPTION

MASTERTOP 540 is an economical, self-levelling, cementitious, non-structural, floor overlay intended for use over poured in-situ and precast concrete floors that are to be subject to light traffic conditions.

MASTERTOP 540 has been specifically formulated to achieve a fast setting, level and flat surface with maximum available flow time. Only water needs to be added at the job site to obtain the desired consistency for pumping or manual installation.

RECOMMENDED FOR

- finishing rough screeded floor
- levelling up floors
- refurbishing old floors
- resurfacing internal rain damaged floors
- refurbishment over terrazzo, quarry or ceramic tiles
- internal floors only

FEATURES AND BENEFITS

- highly fluid and pumpable for fast installation
- pourable or pumpable
- rapid strength gain
- low installed cost
- resistant to cracking
- ready for foot traffic after 6 hours
- return to service in 24 hours
- minimum 7mm thickness

DO NOT USE IN THE FOLLOWING:

- external
- areas subject to weather
- areas subject to impact
- areas subject to constant moisture
- heavy industrial applications

PERFORMANCE DATA

	1 day	28 days
Compressive strength (AS 2073)	10MPa	30MPa
Flexural strength	4MPa	5MPa
Work time @ 23°C	40 mins	
Setting times @ 23°C – Initial	1 - 1½ hours	
– Final	1½ - 2½ hours	
Foot traffic @ 23°C 50%RH	approx. 6 hours	
Pull off bond strength	1.0MPa	
VOC Content 6g/L Test method: SCAQMD 304-91		

Note: The data shown is based on controlled laboratory tests. Reasonable variations from the results can be expected in practice.

PROPERTIES

Supply form	Powder
Water added per bag (20kg)	4.8 litres
Colour	Light Grey
Application temperature	10°C to 30°C
Toxicity	Non toxic

APPLICATION

Substrate condition

Substrate must be dry, clean and free of oil, sealers, curing compounds, paint, polymer coatings, dust or other foreign (bond breaking) 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 540** is best applied where the application temperature is between 10°C and 30°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 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

Apply **MASTERTOP P Primer** to the dry substrate by roller, brush, low pressure spray or squeegee. 2 coats are required to effectively seal the substrate. Take care to avoid puddling of the primer. Allow to dry before application of **MASTERTOP 540**.

Mixing

Mechanical mixing is required for **MASTERTOP 540**.

For small areas, a slow speed stirrer of not more than 600 rpm such as a Festo RW3E mixer fitted with a helical (e.g. Jiffy) paddle, is suitable. Place the required water into the mixing vessel and slowly add powder to the water. Mixing time is 4 minutes.

Whilst mixing, add powder within 3 minutes then mix for a further 1 minute. Allow to stand for 3 minutes then remix prior to application. For more efficient production it is recommended to use two mixing buckets for continuous production of **MASTERTOP 540**.

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.



The Chemical Company

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Method of use

Hand Held Mixer: Pour mixture from buckets over substrate or pump through a suitable pump to desired thickness, smooth where necessary by use of a trowel.

Mechanical mixer/pump: Progress should be steady and even with the application hose discharge point approximately 200mm from the floor. Application should take place continuously into the preceding wet material to ensure even thickness and flow.

With either mixing technique, do not make new edges and 'fill in' the middle.

Minimum thickness 7mm, maximum thickness 20mm.

ESTIMATING DATA

A 20kg bag of **MASTERTOP 540** mixed with 4.8 litres of water yields 12.0 litres (0.012m³) and a 25kg bag yields 14.0 litres.

CURING

MASTERTOP 540 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 flooring coverings.

MASTERTOP 540 must be sealed using two coats of **MASTERTOP TC 495**.

CLEANING

Tools should be cleaned with water before material hardens.

SHELF LIFE

MASTERTOP 540 can be stored in tightly sealed original bags for 6 months if kept dry and at a moderate temperature.

PACKAGING

Available in Australia in 20kg moisture resistant bags and 25kg bags in New Zealand.

PRECAUTIONS

MASTERTOP 540 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. Wash off splashes of material with clean water. If irritation persists, seek medical advice.

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Construction Chemicals **Material Safety Data Sheet (MSDS)** from our office or our website.

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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this **BASF** 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 **BASF** either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not **BASF**, are responsible for carrying out procedures appropriate to a specific application.

BASF Australia Ltd
A.B.N. 62008437867
Head Office: 11 Stanton Road Seven Hills, NSW 2147
Ph. (02) 8811 4200

Newcastle (02) 4961 3819
Canberra (02) 6280 6010
Brisbane (07) 3633 9900
Townsville (07) 4774 7344
Melbourne (03) 9549 0300

Adelaide (08) 8139 7500
Perth (08) 9366 2600
Darwin (08) 8984 3269
Kalgoorlie 0417 772 355

BASF New Zealand Ltd
BASF WEB SITES

Head Office: 45 William Pickering Drive, Albany, Auckland Ph: (09) 414 7233
www.basf-cc.com.au www.basf-cc.co.nz www.meyco.basf.com