

MASTERTOP[®] 540

Cement based bonded floated screed for commercial and residential buildings

USES

- For areas exposed to solid tyre and rubber-wheeled vehicular traffic.
- For levelling uneven concrete floors and screeds.
- Directly usable surface in dry areas indoors, e.g. warehouses, workshops, basement rooms etc.
- When sealed with a film-forming sealer, coating or waterproofing membrane also suitable for indoor areas exposed to occasional moisture, and for outdoor areas.
- For thicknesses from 7 to 20 mm.



Floor levelling compound covering the entire area with self-levelling Mastertop 540 for direct usability.

USER BENEFITS

- **Pumpable, can be applied by machine**, therefore high output possible.
- **Easy flowing**, easy application, requires little manpower.
- **High abrasion resistance**, suitable for areas exposed to tyre-wheeled and solid rubber wheeled vehicular traffic.

CE	
EN 13813 CT-C20-F5-AR0,5	
Selflevelling cement screed for direct use	
Reaction to fire:	C _{fl}
Release of corrosive substances:	CT
Water permeability:	NPD
Compressive strength:	C20
Flexural strength:	F5
Wear resistance:	AR 0,5
Sound insulation:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD

TECHNICAL DATA

Material

Material basis	Special cement with admixtures
Components	1 part
Class of building material acc. to DIN 4102	B 1
Density of fresh mortar	approx. 2 g/cm ³
Consistency	powder
Colour	grey
Identification according to	
- Regulation for Hazardous Goods/Road	non hazardous
- Regulation for Hazardous Material	not subject to identification
<i>For further information refer to paragraph Safety.</i>	
Shelf life	approx. 6 months
Packaging Unit	25 kg PE lined paper bag

Application

Consumption per m ² and mm layer thickness	approx. 1.75 kg powder and/or 2 kg fresh mortar
Layer thickness	7 to 20 mm
Slake time	3 minutes
Working temperature	+5°C to +25°C
Mixing ratio	25 kg Mastertop 540 + 4 l water For partial quantities: 1 kg Mastertop 540 + 160 ml water
Suitable machines	e.g. Collomatic 65/2K; Putzmeister S 5 with pan mixer TM 100; SP 11 or P 13; PFT G4, N2V with Multimix; Berö Tinu etc.
Consistency (mixed mortar)	liquid
Working time*	approx. 40 minutes
Curing time*	
- walkable after	approx. 6 hours
- fully load-bearing after	approx. 7 days
Compressive / Flexural strength (28d):	> 20 / > 5 N/mm ²
Follow-up treatment	Protect Mastertop 540 indoors from draught and direct sunlight for approx. 24 hours. Cover outdoor area with PE foil as soon as walkable, remove foil after 2 days.
Chemical resistance	
Petrol +	resistant over 500 hours at +23°C
Diesel +	resistant over 500 hours at +23°C

* At +23 °C and 50% relative humidity. Higher temperatures reduce, lower temperatures increase these times.

SUBSTRATE PREPARATION

The substrate must be clean, dry, solid, load-bearing and free of grease, old coats of paint and other residues. Remove heavy contamination mechanically, oil and wax residues with oil remover. Fill spalled areas and holes with suitable repair mortars e.g. Emaco® types. Fill cracks with injection resins e.g. Concrevive® types. The average pull-off strength must not be less than 1.5 N/mm² (lowest single value 1.0 N/mm²). The surface must be prepared by sand-blasting or shot blasting (Blastrac).

PRIMING

Use suitable dispersion-based priming compounds. Wear safety goggles during the application.

- 1 Stir the primer thoroughly.
- 2 Apply the primer to the cleaned, prepared substrate in criss-cross method with a float, soft broom or brush. Avoid formation of puddles!
- 3 Mastertop 540 can then be applied to the cured, walkable primer

APPLICATION

- 1 Place gauging water in a suitable mixing vessel, e.g. hobcock. Add Mastertop 540 and mix for at least 3 minutes with a suitable stirrer or mixer (e.g. supplied by Colomix) mounted on a powerful electric drill until a lump-free consistency is achieved.
- 2 Allow mixed Mastertop 540 to slake for approx. 3 minutes and remix briefly.
- 3 With **large areas** up to approx. 300 m² work e.g. with the mixer Collomatic 65/2K or by pumping (from approx. 300 m²). When working with the Collomatic 65/2K mixer use the stirrer for pourable screeds. Place gauging water in a vessel, add Mastertop 540 and mix for at least 3 minutes.
- 4 Pour Mastertop 540 onto the dry, cured primer.
- 4.1 In layer thicknesses from 7 to 20 mm spread with a fine broom or squeegee in the required thickness. Level and deaerate with a suitable spiked roller during the application.

4.2 In layer thicknesses from 4 to 7 mm (only small areas, e.g. in connection areas!) apply mortar in the required layer thickness, spread, smooth with a float and deaerate with a spiked roller.

5 In case of indoor application, avoid draughts, excessive heat and direct sunlight for approx. 24 hours. Do not apply material outdoors if exposed to strong wind, rain or direct sunlight.

Follow-up treatment of Mastertop 540

Mastertop 540 can be applied with suitable primers, sealers, coatings or waterproofing membranes without any substrate preparation provided that the surface is not contaminated.

Cementitious waterproofings can be applied after a waiting period of approx. 3 days.

Epoxi-based coatings & primers can be applied after a waiting period of approx. 7 days.

PLEASE NOTE

- Do not apply Mastertop 540 at substrate temperatures below +5°C and above +25°C.
- The substrate must be almost level with a gradient of max. 2%.
- In thicknesses below 7mm Mastertop 540 can only be applied on small scale, e.g. in connection areas.
- Mix only as much Mastertop 540 as can be applied within approx. 40 minutes.
- Stiffened mortar must not be diluted with water or mixed with fresh Mastertop 540.
- When mixing Mastertop 540 it is important to adhere to the indicated amount of gauging water. Additives are not allowed.
- Mastertop 540 must be prevented from running into corner joints by suitable means, e.g. edge strips.
- Suitable tools can be obtained from e.g. Collomix GmbH, Horchstr. 3, D-85080 Gaimersheim, www.collomix.de.
- Clean tools, machines and mixing equipment with water immediately after use; once the product has cured it can no longer be removed with water.
- Shelf life: approx. 6 months if stored in a dry and cool location.

SAFETY

General information on cement based products

Mastertop 540 contains cement. Contact with moisture or gauging water sets off an alkaline reaction which may cause skin irritation and/or caustic burns to mucous membranes (e.g. eyes). Avoid contact with eyes and prolonged skin contact. In case of eye and skin contact, thoroughly rinse with plenty of water. In case of eye contact get prompt medical attention! Keep out of children's reach. Low in chromate ($\leq 2\text{ppm Cr[VI]}$).

For further information refer to the Material Safety Data Sheet.

In view of widely varying site conditions this data sheet is meant to provide general application guidelines only. Any recommendation or information issued by us constitutes a preliminary and accessory contractual obligation only. Users must satisfy themselves regarding the applicability of the content to their own particular requirements. Please contact our Advisory Service for special requirements.

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