

MasterTop[®] TC 485 W

Water emulsified, two component, epoxy top coat for concrete floors and screeds and as topcoat on water-based, diffusion permeable flooring systems

PRODUCT DESCRIPTION

MasterTop[®] TC 485 W is a non-solvented, water-based, two component epoxy top coat which cures to a satin finish. Either used as a coating on concrete or screeds and top coat on diffusion permeable flooring systems.

FIELDS OF APPLICATION

MasterTop[®] TC 485 W is designed for indoor dust proofing, surface hardening and sealing of concrete floors or cementitious and magnesite screeds.

FEATURES AND BENEFITS

- water-based, environmentally friendly
- virtually odourless during application
- easy to apply
- good adhesion to non porous surfaces
- matt – satin finished

SUBSTRATE PRE-TREATMENT

All substrates (new and old) must be structurally sound, dry and free of laitance and loose particles. Clean floors of oil, grease, rubber skid marks, paint stains and other adhesion impairing contaminants. Mechanical surface profiling by grit or shot blasting, high-pressure water jetting, grinding or scabbling (including the necessary post-treatment) are the preferred floor preparation methods. Pre-treatment is only necessary when the re-coating interval has been exceeded or when too much dust is present on the surface or when you apply **MasterTop[®] TC 485 W** on old aged flooring systems.

After surface preparation the tensile strength of the substrate should exceed 1.5 N/mm² (check with an approved pull-off tester i.e. "Herion" at a load rate of 100 N/s). The residual moisture content of the substrate must not exceed 4% (check with e.g. CM device).

The temperature of the substrate must be at least 3K above the current dew point temperature. A damp proof course must have been properly installed and intact.

APPLICATION METHOD

MasterTop[®] TC 485 W is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, pre-condition both A and B components to a temperature of approximately 15 to 25°C. Pour the entire contents of Parts A and B into a clean pail. DO NOT MIX BY HAND. Mix with a mechanical drill and paddle at a low speed (ca. 300 rpm) for at least 2 minutes.

Scrape the sides and the bottom of the container several times to ensure complete mixing. Keep the mixer blades submerged in the coating to avoid introducing air bubbles. DO NOT WORK OUT OF THE CONTAINER USED FOR MIXING.

After proper mixing to a homogeneous consistency pour the mixed Parts A and B into a fresh container and mix for another 2 minutes.

As a rule, **MasterTop[®] TC 485 W** is applied in two coats, where the consumption per coat depends on the type of application. (See "Consumption"). For the first coat (priming) the dilution is 5% with water and applied by a short-haired roller.

For the second coat the product is ready-for-use; in case of particular application conditions it is possible to dilute the product up to 5% with water, with the care to maintain a constant dilution ratio in the same area. If applied as a coating, the use of a brush or an airless spray is also possible. The second- and eventually the third-coat is applied after the previous coat has dried, but preferably the following day.

As with all water borne sealers, it is important to avoid dry edges by always working wet in wet when overlapping otherwise roller marks will be visible in the final finish. Using a max. 40 cm, medium nap roller, start in the middle of one of the short sides of the floor. Dip the roller into the mixed material and roll out a strip of **MasterTop[®] TC 485 W**, parallel to the wall out to one of the corners. Dip the roller into the material once again and roll out a second strip from the starting point out to the other corner. Move backwards and repeat these steps, overlapping the first strip by a few cm. Using a second roller, starting in one corner, back roll the **MasterTop[®] TC 485 W**, without stopping, to the other corner. Offset the roller by 10 – 20 cm and roll over, again without stopping, to the opposite wall. Always roll in the same direction, do not back roll in a criss-cross pattern. When almost all the laid material has been back rolled, lay two more strips and back roll as described above. Using this method, the period between the overlapping should not exceed 1 – 4 minutes and visible roller marks will be minimised.

MasterTop[®] TC 485 W dries primarily by evaporation of water followed by a chemical cross-linking reaction. Therefore when applying **MasterTop[®] TC 485 W** the ambient temperature and humidity are of importance. High humidity (especially in combination with low temperatures) slows down the drying process and the gloss level. After application, the surface should be protected from direct contact with water for at least 24 h (15°C / 50 % r.h.).

CONSUMPTION

First layer (priming):
0.15 – 0.25 kg/m² (Dil. 5% with water)

Second and third layer:
0.20 – 0.25 kg/m² (no dilution)

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CLEANING AGENT

Re-usable tools should be carefully cleaned immediately after use with water. Once the material has cured mechanical cleaning is required which is made easier by immersion of the tools in **MasterTop® CLN 44**.

PACKAGING

MasterTop® TC 485 W is supplied in 25 kg working packs.

COLOUR

MasterTop® TC 485 W is available in a wide range of RAL colours. For more information, please consult your local sales office.

STORAGE

Store in original containers, under dry conditions and a temperature between 15–25°C. Do not expose to direct sun-light. Protect from frost. For maximum shelf life under these conditions, see "Best before." label.

EU REGULATION 2004/42 (DECOPAINT GUIDELINE)

This product conforms to the EU directive 2004/42/EG (Deco-Paint directive) and contains less than the maximum allowable VOC Limit (Stage 2, 2010). According to the EU directive 2004/42, the maximum allowable VOC content for the Product Category IIA / j type wb is 140 g/l (Limit: Stage 2, 2010). The VOC content for **MasterTop® TC 485 W** is < 140 g/l (for the ready to use product).

WARNING AND PRECAUTIONS

In its cured state, **MasterTop® TC 485 W** is physiologically non-hazardous. The following protective measures should be taken when working with the material:

Wear safety gloves, goggles and protective clothing. Avoid contact with the skin and eyes. In case of eye contact, seek medical attention. Avoid inhalation of the fumes.

When working with the product do not eat, smoke or work near a naked flame. For additional references to safety-hazard warnings, regulations regarding transport and waste management please refer to the relevant Material Safety Data Sheet. The regulations of the local trade association and/or other authorities, regulating safety and hygiene of workers handling epoxy resins must be followed.

CONTACT INFORMATION

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MasterTop® TC 485 W Technical Data Sheet -Revision
Date: 09/2023

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Technical data*				
Mix ratio			by weight	2:3
Solid content			by volume	%
Density	Part A	at 23°C	g/cm ³	1,10
	Part B	at 23°C	g/cm ³	1,40
	mixed	at 23°C	g/cm ³	1,25
Viscosity (Brookfield, Sp. 5 / 20rpm)	Part A	at 23°C	mPa.s	1000
	Part B	at 23°C	mPa.s	5000
	mixed	at 23°C	mPa.s	1200
Pot life (25-kg-unit)		at 23°C	Min.	40
Ambient and substrate temperatures		at 23°C	^o C ^o C	Min. 8 Max. 48
Re-coating interval			h h	Min. 10 Max. 48
Ready for low traffic		at 23°C	h	48
Fully cured		at 23°C	d	7
Technical data cured material*				
Abrasion Resistance TABER		EN ISO 5470-1		65 mg
Fire classification according to ÖNORM EN 13501-1, consumption:330 g/m ²				B-s1

*The above figures are intended as a guide only and should not be used as a basis for specifications.

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20 DOP NO : 02.1504.2.032 1020 – CPR – 040 065838 EN 1504-2: 2004	
MASTERTOP TC 485 W Beton Yapıların Korunması ve Tamiri İçin Mamuller ve Sistemler. Bölüm:2 Beton için Yüzey Koruma Sistemleri (Products and systems for the protection and repair of concrete structures Part 2: Surface protection systems for concrete)	
1.3 Yabancı madde girişine karşı koruma, 2.2 Nem Kontrolü, 8.2 Nem içeriğini sınırlayarak direnci artırma amaçlı kaplama malzemesi (Principles: 1.3 Protection against ingress, 2.2 Moisture control, 8.2 Increasing resistivity)	
CO2 Geçirgenliği (Permeability to CO2)	CO2 SD Geçirgenliği > 50m (CO2 SD permeability > 50m)
Su Buhan Geçirgenliği (Permeability to water vapour)	Sınıf I (Class I)
Kapiler Su Emme ve Su Geçirgenliği (Capillary absorption and permeability to water)	w<0,1 kg /m ² .h
Çekip Koparma Deneyi Yoluyla Yapışma Dayanımı (Adhesion strength by pull-off test)	Rigid Systems Trafik yüküyle birlikte:>2,0 N/mm ² (1,5 min) (Rigid Systems With trafficking:>2,0 N/mm ² (1,5 min))
Yangına karşı tepki (Reaction to fire)	B-s1;d0
Tehlikeli maddeler (Dangerous substances)	Madde 5.4 ' e uygun (Comply with clause 5.4)