

MasterTop® TC 417 W

2K-PU-top coat, water borne, non-solvented, elastic, UV-stable, matt, low emission, bacteriostatic, clear or pigmented

PRODUCT DESCRIPTION

MasterTop® TC 417 W is a water borne, non-solvented, low emission, bacteriostatic, clear or pigmented 2K-PU top coat which cure to a matt finish.

FIELDS OF APPLICATION

MasterTop® TC 417 W is designed, for use as a wear resistant top coat on elastic polyurethane systems, i.e. **MasterTop® 1325** (pigmented version), **MasterTop® 1326** (clear version), **MasterTop 1327 C** (pigmented version), **MasterTop® 1327 D** (clear version), **MasterTop® WS 200 PU** and **MasterTop® WS 300 PU** (pigmented version).

FEATURES AND BENEFITS

- matt finish
- NMP, APEO, VOC, glycol- and solvent free
- very low emission (according AgBB)
- abrasion resistant
- improves scratch and wear resistance
- UV- stable
- good adhesion to non-porous substrates
- low viscosity
- easy to clean and maintain
- bacteriostatic activity according to ISO22196:2011

SUBSTRATE PRE-TREATMENT

The coating to which **MasterTop® TC 417 W** is applied should be clean and dry. Application should take place within the recoat intervals of the coating to which it is to be applied. The substrate temperature should be at least 3K above the dew point.

APPLICATION METHOD

MasterTop® TC 417 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 3 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 minute. 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. Use 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 417W**, 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 backward and repeat these steps, overlapping the first strip by a few cm. Use a second roller, starting in one corner; back roll the **MasterTop® TC 417W**, 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. Depending of the application method and quantity, **MasterTop® TC 417 W** can have a light structure, without influence on the final properties.

Attention: When using the product as a top coat for **MasterTop® WS 200 PU** and **MasterTop® WS 300 PU** please consult your local technical service.

MasterTop® TC 417 W dries primarily by evaporation of water followed by a chemical cross-linking reaction. Therefore, when applying **MasterTop® TC 417W**, the ambient temperature and humidity is of importance. High humidity (especially in combination with low temperatures) slows down the drying process. After application, the surface should be protected from direct contact with water for at least 24h (23°C / 50% r.h.).

Note: Because of the good cleaning ability of **MasterTop® TC 417W**, an initial care is not necessarily required. The slight surface structure can be seen by a glossy cleaning maintenance. In order to preserve the optical properties, just satin matt to matt cleaning maintenance is suitable

CONSUMPTION

clear: ca. 0,10 – 0,12 kg/m²

pigmented: ca. 0,10 – 0,12 kg/m²

Caution: Please do not dilute the top coat with water. Do not exceed the maximum consumption.

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 40**.

PACKAGING

MasterTop® TC 417W clear and pigmented is supplied in 10-kg working packs.

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COLOURS

MasterTop® TC 417 W is available in a wide range of RAL and NCS colours. For more information, please consult your local sales office.

Also available as a clear version.

Note for colour selection: For darker or highly pigmented colours it could be, in spite of all care during processing, that there shadings or fine structures in the surface are visible. This effect is systemic in nature and does not affect the product suitability. Higher pigmented colours can also have an increased "colour" abrasion. In these cases an additional transparent top coat (e.g. **MasterTop® TC 417 W** clear) should be applied. If in doubt, advance should be created a test area for evaluation.

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 417 W** is < 140 g/l (for the ready to use product).

WARNING AND PRECAUTIONS

In its cured state, **MasterTop® TC 417 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 polyurethane and isocyanides must be followed.

CONTACT INFORMATION

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MasterTop® TC 417 W Technical Data Sheet -Revision
Date: 12/2020

MasterTop[®] TC 417 W

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Technical data*				
Mix ratio A:B			by weight	85:15
Solid content		Clear pigmented	% %	48 50
Density	clear at 23°C	Part A	g/cm³	1,05
		Part B	g/cm³	1,13
		mixed	g/cm³	1,06
	pigmented at 23°C	Part A	g/cm³	1,13
		Part B	g/cm³	1,13
		mixed	g/cm³	1,20
Viscosity (4mm DIN cup for part A and mix)	clear at 23°C	Part A	Sec. mPa.s	32
		Part B	Sec.	1480
		mixed		45-55
	pigmented at 23°C	Part A	Sec. mPa.s	17
		Part B	Sec.	1480
		mixed		35-458
Working Time		at 20°C	min	45
Ambient and substrate temperatures			h h	Min. 16 Max. 24
Re-coating interval		at 20°C	°C °C	Min.10 Max.30
Light pedestrian traffic		at 12°C / 50%r.h. at 23°C / 50%r.h. at 30°C / 50%r.h.	H H H	24 18 12
Fully cured		at 23°C	d	7
Max. relative humidity			% %	Min. 30 Max. 80
Surface properties			matt, light structure	

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

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CE MARKING ACCORDING TO EN 13813

	
Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
14	
341708	
EN 13813: 2002	
EN 13813: SR-B1,5-AR1-IR4 Synthetic resin screed for internal uses	
Essential characteristics	Performance
Fire behavior	Bfl-s1
Release of corrosive substances	SR
Water permeability	NPD
Wear resistance	< AR 1
Bond strength	> B 1,5
Impact resistance	> IR 4
Impact sound insulation	NPD
Sound absorption	NPD
Heat insulation	NPD
Chemical resistance	NPD

NPD = No performance determined Performance determined in System MasterTop 1325

CE MARKING ACCORDING TO EN 1504- 2

	
1119	
Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
10	
341717	
EN 1501-2: 2004	
EN 1504-2: ZA.1d, ZA.1e, ZA.1f and ZA.1g Surface protection products – Coating	
Abrasion resistance	< 3000 mg
Permeability to CO2	Sd > 50
Permeability to water vapour	Class III
Capillary absorption and permeability to water	< 0,1 kg/(m²xh0,5)
Adhesion after thermal compatibility freeze-thaw cycling with de-icing salt immersion	NPD
Resistance to severe chemical attack class I:3d without pressure	Loss of hardness < 50 %
Crack bridging ability	A 2 (-10° C)
Impact resistance	NPD
Adhesion by Pull-off test	≥ 1,5 N/mm²
Reaction to fire	Bfl-s1
Slip/Skid resistance	NPD

NPD = No performance determined Performance determined in System MasterSeal Balcony 1339