

# MasterTop<sup>®</sup> TC 417W

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

## DESCRIPTION

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

## TYPICAL APPLICATIONS

**MasterTop TC 417W** is designed, for use as a wear resistant top coat on elastic polyurethane systems, i.e. **MasterTop 1325**, **MasterTop 1325AB** (pigmented version) and **MasterTop 1326** (clear version).

## ADVANTAGES

- 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

## PACKAGING AND COLORS

**MasterTop TC 417W** is supplied in 10 kg working packs.

**MasterTop TC 407W** is available as Clear and 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 the 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 407W** clear) should be applied. If in doubt, advance should be created a test area for evaluation.

## TECHNICAL DATA\*

Mix ratio			by weight	85 : 15	
Solid content		clear	%	48	
		pigmented	%	50	
Density	Clear at 23°C	Part A	g/cm <sup>3</sup>	1.05	
		Part B	g/cm <sup>3</sup>	1.13	
		mixed	g/cm <sup>3</sup>	1.06	
	Pigmented at 23°C	Part A	g/cm <sup>3</sup>	1.13	
		Part B	g/cm <sup>3</sup>	1.13	
		mixed	g/cm <sup>3</sup>	1.20	
Viscosity (4mm DIN cup for Part A and Mixed)	Clear at 23°C	Part A	sec.	32	
		Part B	mPa.s	1480	
		mixed	sec.	45-55	
	Pigmented at 23°C	Part A	sec.	17	
		Part B	mPa.s	1480	
		mixed	sec.	35-45	
Working time		at 20°C	min.	45	
Ambient and substrate temperature			°C	min. 10	max. 30
Re-coating interval		at 20°C	h	min 16	max. 24
		at 12°C / 50% r.h.	h	24	
		at 23°C / 50% r.h.	h	18	
Light pedestrian traffic		at 30°C / 50% r.h.	h	12	
		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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## APPLICATION GUIDELINES

**MasterTop TC 417W** is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, pre-condition both PTA and PTB to a temperature of approximately 15 to 25°C. Pour the entire contents of PTA and PTB 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 PTA and PTB 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. 40cm, 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 10-20cm 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 417W** 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 417W** 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).

## SUBSTRATE PRE-TREATMENT

The coating to which **MasterTop TC 417W** 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.

**Note:** Because of the good cleaning ability of **MasterTop TC 417 W**, 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.

## CLEANING

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 a suitable thinner (Xylene / MEK / Acetone).

## CONSUMPTION

Approx. 0.10 – 0.12 kg/m<sup>2</sup>

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

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## STORAGE AND SHELF LIFE

Store in original containers, under dry conditions and a temperature between 15–25°C. Do not expose to direct sun-light. Protect from frost. The shelf life is 12 months when stored as above.

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

## HEALTH AND SAFETY

In its cured state, **MasterTop TC 417W** 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.

® = Registered trademark of the MBCC Group in many countries.

\* Properties listed are based on laboratory controlled tests.

## CE-marking according to EN 13813

	
Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
14	
341708	
EN 13813: 2002	
Synthetic resin screed for internal uses EN 13813: SR-B1,5-AR1-IR4	
Essential characteristics	Performance
Fire behaviour*	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
Slip/Skid resistance	R9/R10
Emissions behaviour	Ü-Z: Z-156.605-686

NPD = No performance determined  
Performance determined in System **MasterTop 1325**

## STATEMENT OF RESPONSIBILITY

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

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