

# MasterTop® TC 409 W ESD

2K-PU ESD top coat, water borne, UV-stable, matt, antistatic, according to the requirements of EN 61340-5-1 and EN 61340-4-5, low emission

## PRODUCT DESCRIPTION

**MasterTop® TC 409 W ESD** is an antistatic 2K-PU top coat with matt finish, water borne and **low emission**.

## FIELDS OF APPLICATION

**MasterTop® TC 409 W ESD** is designed for use as a wear resistant antistatic top coat for indoor application in ESD areas with low to medium mechanical stress. **MasterTop® TC 409 W ESD** is designed to provide an ESD top coat on smooth surface like the conductive polyurethane body coat **MasterTop® BC 375 N AS** in the system **MasterTop® 1324 ESD** as a system component.

## FEATURES AND BENEFITS

- ESD properties (EN 61340-5-1, 4-5)
- improves scratch and wear resistance
- water based, environmentally friendly
- low emission (according AgBB)
- pigmented, matt finish
- good adhesion to non-porous substrates
- easy to apply

## APPLICATION METHOD

**MasterTop® TC 409 W ESD** is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, precondition 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. **After mixing allow to stand for at least 10 minutes then mix again just before application.**

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 409 W ESD**, 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 409 W ESD**, 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 409 W ESD** dries primarily by evaporation of water followed by a chemical cross-linking reaction. Therefore, when applying **MasterTop® TC 409 W ESD** the ambient temperature and humidity are of importance. High humidity (especially in combination with low temperatures) slows down the drying process. The temperature of the substrate must be at least 3K above the dew point during the application and for at least a further 24 hours (at 15°C).

## SUBSTRATE PRE-TREATMENT

The coating to which the **MasterTop® TC 409 W ESD** is applied should be clean and dry, free of loose and brittle particles as well as substances, which impair adhesion such as oil, grease rubber skid marks, paint or contaminants. Pretreatment is only necessary when the recoating interval has been exceeded or the surface is contaminated. To avoid scratches only grind the surface with a fine sand paper or pad.

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.

## CONSUMPTION

ca. 0,15 – 0,18 kg/m<sup>2</sup>

## 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** or with e.g. solvent naphtha.

## PACKAGING

**MasterTop® 409 W ESD** is supplied in 10-kg working packs.

## COLOUR

**MasterTop® TC 409 W ESD** is available in a wide range of RAL colours. For more information, please consult your local sales office.

### 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

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<b>Technical data*</b>			
Mix ratio		by weight.	4.1
Solid content		%	45
Mixed density	at 23°C	g/cm <sup>3</sup>	1,24
Mixed viscosity	DIN 4 mm cup at 23°C	s	25
Pot-life	at 20°C	h	3
Light pedestrian traffic	at 23 °C/50 % r.h.	H	Min. 8
	at 10 °C/50 % r.h.	h	Max. 48
Fully cured	at 23°C	d	25
			12
Substrate and application temperatures		°C °C	80
Max. permissible relative humidity	at any T°C	%	7
<b>Technical data cured material*</b>			
Taber abrasion	CS 10, 1KG, 1000U	mg	65
Point-to-point resistance	EN 61340-4-1	Ohm	5.10 <sup>5</sup> - 5.10 <sup>6</sup>
In combination with the conductive system MasterTop 1384 ESD the special requirements according to EN 61340-5-1 are fulfilled.			
Resistance to ground	EN 61340-4-1	Ohm	< 10 <sup>9</sup>
Footwear/Person/Floor	EN 61340-4-5	Ohm	< 3,5.10 <sup>7</sup>
Walking-test	EN 61340-4-5	V	< 100

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

pigmented colours can also have an increased "colour" abrasion. If in doubt, advance should be created a test area for evaluation.

## STORAGE

Store in original drums under dry conditions and a temperature between 15-25°C. Do not expose to direct sunlight and prevent the temperature from falling below the above mentioned range (crystallisation). 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 409 W ESD** is < 140 g/l (for the ready to use product).

## WARNING AND PRECAUTIONS

In its cured state, **MasterTop® TC 409 W ESD** 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 isocyanates must be observed.

## DETAILS FOR CLEANING PROCEDURE

For the cleaning use cleaning agents which pH-values are in the range of 8.5 – 11. The cleaners must be not oxidative, reductive and must be non-film forming.

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## DISCLAIMER

In view of widely varying site conditions and fields of application of our products, this technical data sheet is meant to provide general application guidelines only. This information is based on our present knowledge and experience. The customer is not released from the obligation to conduct careful testing of suitability and possible application for the intended use. The customer is obliged to contact the technical help-line for fields of application not expressly stated in the technical data sheet under "Fields of Application". Use of the product beyond the fields of application as stated in the technical data sheet without previous consultation with **Master Builders Solutions** and possible resulting damages are in the sole responsibility of the customer.

All descriptions, drawings, photographs, data, ratios, weights i.e. stated herein can be changed without advance notice and do not represent the condition of the product as stipulated by contract. It is the sole responsibility of the recipient of our products to observe possible proprietary rights as well as existing laws and provisions. The reference of trade names of other companies is no recommendation and does not exclude the use of products of similar type. Our information only describes the quality of our products and services and is no warranty. Liability is accepted for incomplete or incorrect particulars in our data sheets only in the event of intent or gross negligence, without prejudice to claims under product liability laws.

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MasterTop<sup>®</sup> TC 409 W ESD Technical Data Sheet -  
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Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
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340903	
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 substance	SR
Water permeability	NPD
Wear resistance	< AR 1
Bond strength	> B 1,5
Impact resistance	> IR4
Impact sound insulation	NPD
Sound absorption	NPD
Heat insulation	NPD
Chemical resistance	NPD

NPD = No performance determined Performance determined in System MasterTop 1324 ESD.

Mitglied der

