

MasterSeal[®] TC 681

2K-Polyaspartic top coat, pigmented, glossy, fast and low temperature curing, UV stable, for decks, parking systems, broadcasted and water-feature coatings

DESCRIPTION

MasterSeal TC 681 is a two component, pigmented, fast and low temperature curing, UV-stable, non-yellowing, elastic top coat with glossy finish on broad casted coatings.

MasterSeal TC 681 contains solvents.

TYPICAL APPLICATIONS

MasterSeal TC 681 is primarily intended as the top coat in car park deck applications, pools and water feature applications where its rapid cure, low dirt retention, excellent UV resistance and excellent wear properties can be exploited.

MasterSeal TC 681 is used in following systems:

MasterSeal Traffic Systems

MasterSeal Roof Systems

MasterSeal Pool Systems

ADVANTAGES

- Rapid cure
- Short "ready for traffic" times
- Excellent mechanical properties
- Hard wearing
- Elastic
- Crack bridging
- Excellent UV and weather resistance
- Attractive appearance
- Low dirt retention
- Easy to clean and maintain
- Submerged conditions

PACKAGING AND COLORS

MasterSeal TC 681 is supplied in 28kg working packs and available in the following approx. RAL 1001, 1015, 6021, 7001, 7016, 7023, 7030, 7032, 7035, 7038, 7040.

For further colours consult your local sales office.

TYPICAL PROPERTIES*

Property		Unit	Data
Chemical base			Polyaspartic
Mix ratio		A : B	100 : 67
Solid content (mixed)		%	94
Density @ 23°C	Part A	g/cm ³	1.74
	Part B	g/cm ³	1.07
Viscosity @ 23°C	Part A	mPa.s	4650
	Part B	mPa.s	200
	mixed	mPa.s	700
Working time @ 23°C		mins	25
Ready for pedestrian walking @ 23°C		hours	4
Ready for car traffic @ 23°C		hours	7
Fully cured @ 23°C		d	7
Substrate and ambient temperature		°C	min. 8 max. 30
Permissible relative humidity		%	max. 80

Technical data cured material

Tensile strength	DIN 51504	N/mm ²	20
Elongation	DIN 53504	%	180
Tear strength	DIN 53515	N/mm ²	70

**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

SURFACE PREPARATION

The coating to which **MasterSeal TC 681** is to be applied to should be clean and dry and free of any substances which may impair adhesion. Application should take place within the re-coat intervals of the coating to which it is to be applied.

MIXING

MasterSeal TC 681 is supplied in working packs which are pre-packaged in the exact ratio. Before mixing, pre-condition both the A and B components to a temperature of approximately 15 to 25°C.

Pour the entire contents of Part B into the container of Part A. **DO NOT MIX BY HAND.** Mix with a mechanical drill and paddle at a low speed (approx. 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 bladed fully submersed in the coating to avoid introducing air bubbles. **DO NOT WORK OUT OF THE ORIGINAL CONTAINER.** After proper mixing to a homogeneous consistency, pour the mixed Parts A and B into a clean container and mix for a further minute.

PLACING / APPLICATION

MasterSeal TC 681 is poured onto the prepared substrate and spread with a notched trowel, or spreader and back rolled using a medium nap lambs wool roller.

The curing time of the material is influenced by the ambient, material and substrate

temperatures. At low temperatures, the chemical reactions are slowed down; this lengthens the pot life, open time and curing times. High temperatures speed up the chemical reactions thus the time frames mentioned above are shortened accordingly. To fully cure, the material, substrate and application temperature should not fall below the minimum during application and for at least 2 hours after application. Following application, the material should be protected from direct contact with water for approx. 2 hours. The temperature of the substrate must be at least 3 K above the dew

point both during the application and for at least 2 hours after application (at 15°C).

CLEANING

Re-usable tools should be carefully cleaned with a suitable thinner (Xylene / MEK / Acetone).

COVERAGE / YIELD

The consumption of **MasterSeal TC 681** is approx. 0.6 – 0.9 kg/m² depending on the size and distribution of the aggregate used in the wear coat.

Consumption for pools and water features to be consulted with our Technical department.

WATCHPOINTS

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 is 500 g/l (Limit: Stage 2, 2010). The VOC content for **MasterSeal TC 681** is < 500 g/l (for the ready to use product).

STORAGE AND SHELF LIFE

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


HEALTH AND SAFETY

In its cured state, **MasterSeal TC 681** is physiologically non-hazardous. The following protective measures should be taken when working with this 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 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 regarding safety and hygiene of workers handling polyurethanes and isocyanates must be observed.

MasterSeal® TC 681

CE-marking according to EN 1504-2

	
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Master Builders Solutions Deutschland GmbH Donnerschweer Str. 372, D-26123 Oldenburg	
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348104	
EN 1504-2: 2004	
Surface protection products – Coating EN 1504-2: ZA.1d, ZA.1e, ZA.1f and ZA.1g	
Linear shrinkage	NPD
Compressive strength	NPD
Abrasion resistance	≤ 3000 mg
Permeability to CO ₂	Sd > 50
Permeability to water vapour	Class II
Capillary absorption and permeability to water	<0.1kg/(m ² xh ^{0.5})
Adhesion after thermal compatibility freeze-thaw cycling with de-icing salt immersion	≥ 1.5 N/mm ²
Resistance to severe chemical attack class I:3d without pressure	Loss of hardness <50%
Crack bridging ability	B 4.2 (-20°C)
Impact resistance	Class I
Adhesion by Pull-off test	≥1.5 N/mm ²
Reaction to fire	C _{fl} -s1
Slip/Skid resistance with MasterSeal TC 258	Class III
with MasterSeal TC 681	Class II

NPD = No performance determined. Performance determined in system build up **MasterSeal Traffic 2205**

	
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EN 13813: 2002	
Synthetic resin screed for use internally in Buildings EN 13813: SR-B1,5-AR1-IR4	
Essential characteristics	Performance
Fire behavior	Cfl-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	NPD
Emissions behaviour	NPD

NPD = No performance determined. Performance determined in system build up **MasterSeal Traffic 2205**.

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

* Properties listed are based on laboratory controlled tests.

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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Disclaimer: the TUV mark relates to certified management system and not to the product mentioned on this datasheet



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