Technical Data Sheet Humidur® TC

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1. Product Description

Humidur TC is a two-component, solvent-free, epoxy silane hybrid topcoat offering the following benefits:

- Excellent gloss and colour retention
- UV-resistant
- Environmentally friendly (100% solids, no solvents, no VOC's, no heavy metals, no iso-cyanates
- High weather resistance
- Excellent impact resistance
- Outstanding adhesion to substrate

2. Composition

Humidur TC consists of two components:

A is the base component and contains:

- The epoxy siloxane resin
- Lamellar abrasion and impact resistant fillers
- Colouring pigments

B is the hardener and contains:

Amino-silane hardener complex

3. Recommended Use

Humidur TC is generally applied on top of epoxy coatings and on top of concrete for aesthetic reasons, for its high weather and UV resistance. Apply Humidur TC on top of Humidur ME and FP when a durable high grade and colour stable finish is required.

Opposed to the other Humidur coatings, Humidur TC cannot cure under water.

4. Manufacturer's Information

Acotec NV, with registered offices at Aalst, Belgium, is the developer and sole manufacturer of the Humidur products, distributed worldwide through a wide network of agents and cooperative companies. The proven lifetime of the Humidur coatings in practice is more than 30 years.

Contact Acotec directly or visit www.humidur.com for reference projects.

5. Product Data

SPECIFIC DATA		HUMIDUR FP SINGLE	
Density @ 23 °C	Component A Component B	± 1.270 g/cm³ ± 0.985 g/cm³	
	Mixture A + B	± 1.230 g/cm³	
Solid content		100 %	
Viscosity of the mixture @ 23 °C and CSS 750 Pa		3 ± 1 Pa·s	
Flash point mixture A + B		> 90 °C	
Hardness		Shore D > 80	
Colour (gloss)		Any RAL colour 25 colours immediately deliverable	
Minimum thickness in 1 layer		60 μm	
Maximum thickness in 1 layer		100 μm	
Covering capacity (WFT = DFT)	Theoretical @ 60 µm Theoretical @ 10 µm	0.074 kg/m² 0.123 kg/m²	
Mixing ratio A : B	By weight By volume	7.6 : 1 5.9 : 1	
Overcoating time		4 – 48 hours	
Standard packaging / set		4 kg or 16 kg	
Pot life @ 23 °C		2 hours	
Shelf life max. 25 °C dry		18 months	

6. Curing Time

The curing times depend on air circulation, temperature and the film thickness. The touch dry time at 23 °C is 4 hours and full cure is achieved after 3 days at this temperature. These values are indicative.

Opposed to the other Humidur coatings, Humidur TC does not have the ability to cure under water.

	10 °C	15 °C	20 °C	25 °C	30 °C
Touch-dry	6 hours	5 hours	4 hours	3.5 hours	3 hours
Full cure	5 days	4 days	3 days	48 hours	36 hours

7. Surface Preparation

All surfaces shall be free of oil, grease, dust or any other contamination prior to coating.

SUBSTRATE	EXPECTED LIFE TIME	WARRANTY
Coating	Remove all grease, dirt, any other contami- nation, and moisture	Orbital electric sander or abrasive paper 120 –180 grade
Concrete	Remove all grease, dirt, any other contami- nation, and moisture	Orbital electric sander or abrasive paper 60-120 grade Sweep blasting

8. Application

The application of Humidur TC can be done by using airless spray, gravity feed spray gun, brush or roller.

APPLICATION PARAMETERS	HUMIDUR TC
Temperature before mixing	20 °C – 25 °C
Application temperature of mixture	20 °C – 25 °C
Surface temperature* minimum Surface temperature* maximum	< 0 °C and > DPT + 3 °C 50 °C
Humidity* Relative Humidity Humidity* Surface	< 95 % No condensation
Spray nozzle opening Spray nozzle angle	0.009" - 0.019" 30° - 50°

^{*} These criteria are valid to achieve the most durable protection. If a reduced coating lifetime is desired, application can continue outside this window. The existing warranties do not apply in these conditions. Please contact Acotec NV directly for more information on the expected lifetime in these conditions.

9. Environment

Humidur TC has been designed to fully respect the environment.

The product contains:

- No VOC (0 %) (100 % solids)
- No solvents or diluents (WFT = DFT)
- No isocyanates
- No heavy metals

10. Important Note

The English version of the Technical Data Sheet takes precedence over other languages. The latest version of the Technical Data Sheet can be found on our website www.humidur.com.

Should there be any discrepancies between this document and the document online, the online document takes precedence.

