

# Technical Data Sheet

## HYDROTHANE® FL

Serie 159832

### PRODUCT DESCRIPTION

Water based two pack fluorinated polyurethane topcoat with excellent gloss and colour retention.

### INTENDED USES

Topcoat with high gloss, hardness and flexibility. Particularly suitable as a topcoat over water based epoxy systems for the protection of industrial plants, steel structures, metal structures located in the industrial and marine environments when are required for maximum performance weathering and long-term preservation of the original surface. The fluorinated resins used having a minimum amount of 25% fluorine and 15% chlorine, gives high stability to light and chemical attack. HYDROTHANE FL can also be used as a topcoat in classes C3, C4, C5 and CX (according to standard ISO 12944) on various primer of the trademarks HYDROGUARD and in protective systems qualified according to NORSOK M-501 7B. This product contributes to the Green Buildings standard credits for LEED certification.

### TECHNICAL INFORMATIONS

Product type	Water based fluorinated polyurethane topcoat			
Colours	Ral colours			
Solids (% +/- 2)	41 (by Volume) 52 (by Weight)	SOV/VOC (g/liter)	<70	Directive 2004/42/CE
Specific Gravity (g/liter +/- 100)	1170	SOV/VOC (g/liter) (calculated)	<70	Directive 2010/75/CE
Flash Point (°C +/- 2)	>50			
Appearance	glossy			
Temperature Resistance (°C)	90 (dry) - 110 (peak)			

### APPLICATION DATA

Application Range (min - max) Typical	Film thickness per coat in micron		Theoretical spreading rate		Consumption
	Dry	Wet	m <sup>2</sup> /l	m <sup>2</sup> /kg	g/m <sup>2</sup>
	30 - 50	74 - 122	13.7 - 8.2	11.7 - 7	-
	<b>40</b>	<b>98</b>	<b>10.3</b>	<b>8.8</b>	<b>115</b>

Room Temperature	min 10°C	Max 40°C	Relative Humidity	min 5%	Max 80%
Mixing Ratio	7 - 1 (by weight)		6,2 - 1 (by volume)		
Pot life	3 h				
Thinner/Cleaner	clear water (max. 5-10% by weight)				

### Application methods

Airless or conventional spray.

NOTE: mixing the two components separately, then catalyze the base and mixing the two components to obtain a homogeneous product. Mixing the two components viscosity of the product will increase. Then slowly add the water and under mixing dilution up to a maximum of 5-10% by weight.

### Guideline for airless spray

Pressure at nozzle	15 Mpa (150 kp/cm <sup>2</sup> , 2100 psi)
Nozzle tip	0,46 - 0,58 mm (0,018 - 0,023" )

**Ti.Pi.Ci. s.a.s. di C.M. Pinto & C.**

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**HYDROTHANE® FL****Series 159832****SURFACE PREPARATION**

the substrate must be clean and dry. Surface contamination is to be removed by detergents and fresh water cleaning.

**CONDITION DURING APPLICATION**

the temperature of the substrate should be min. 10°C and min. 3°C above the dew point of the air. The temperature and relative humidity should be measured in the vicinity of the substrate.

**DRYING TIMES**

Drying times are generally related to air circulation, temperature, film thickness and number of coats, and will be affected correspondingly. The figures given in the table are typical with: good ventilation (outdoor exposure or free circulation of air), recommended film thickness, one coat on top of inert substrate.

Substrate temperature	Surface Dry <sup>1</sup>	Hard Dry <sup>2</sup>	Cured <sup>3</sup>	Dry to recoat <sup>4</sup>	
				minimum <sup>5</sup>	Maximum <sup>6</sup>
10°C		5 h	72 h	12 h	-
20°C		3 h	36 - 48 h	8 h	-
30°C		1,5 h	24 - 36 h	6 h	-

- 1
- 2 Data resulted by tests and experience in practical applications. A good ventilation can improve the drying time.
- 3 Data resulted by tests and experience in practical applications.
- 4 Recommended data given for recoating with same generic type of paint.
- 5 In case of multi-coat application, drying times will be influenced by the number in sequence and by the total thickness of previous coat applied.
- 6 The surface should be dry and free from any contamination prior to application of the subsequent coat.

Given data must be considered as guidelines only. Actual drying time can only be decided at site, depending on age of existing system, generic types, numbers of coats, thinning, temperature, ventilation, etc.

**THIS PRODUCT IS INTENDED FOR PROFESSIONAL USE ONLY**

The applicators and operators shall be trained, experienced and have the capability and equipment to mix/stir and apply the coatings correctly and according to Ti.Pi.Ci.'s technical documentation.

**STORAGE AND PACKAGING**

**STORAGE** the product should be stored in accordance with national regulations. The best storage conditions are to keep the packages in a dry space provided with adequate ventilation.

**SHELF LIFE** 6 months at room temperature.

**PACKAGING** 17,5 kg comp. A and 2,5 kg comp. B (20 kg KIT A+B)

**HEALTH AND SAFETY**

**For detailed information on the health and safety hazards and precautions for the use of this product, we refer to the Material Safety Data Sheet.**

**Disclaimer**

*The information in this data sheet is given to the best of our knowledge based on laboratory testing and practical experience. However, as the product is often used under conditions beyond our control, we can not guarantee anything but the quality of the product itself. We reserve the right to change the given data without notice.*

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