

Technical Data Sheet

HYDROGUARD® Zinc

Serie 159896

PRODUCT DESCRIPTION

HYDROGUARD Zinc is a three components water based zinc rich epoxy primer in accordance to regulatory SSPC Paint 20 level 1. Is supplied with zinc dust ASTM D520 Type III. HYDROGUARD Zinc contains 88% by weigh of zinc powder in dry film thickness.

INTENDED USES

Particularly suitable as a high performance anticorrosive primer for particularly aggressive environments such as offshore structures, chemical and petrochemical plants, bridges. Can be used as primer in protective systems up to CX class in accord to standard ISO 12944 and in protective systems qualified according to NORSOK M-501 System 1. Not to be overcoated with alkyds. This product contributes to the Green Buildings standard credits for LEED certification.

TECHNICAL INFORMATION

Product type	Zinc rich water based epoxy primer			
Colours	Grey			
Solids (% +/- 2)	68 (by Volume)	91 (by Weight)	SOV/VOC (g/liter)	<50 Directive 2004/42/CE
Specific Gravity (g/liter +/- 100)	3000		SOV/VOC (g/liter) (calculated)	48,81 Directive 2010/75/CE
Flash Point (°C +/- 2)	not flammable			
Appearance	matt			
Temperature Resistance (°C)	100 (dry) - 120 (peak)			

APPLICATION DATA

Application Range (min - max) Typical	Film thickness per coat in micron		Theoretical spreading rate		Consumption
	Dry	Wet	m ² /l	m ² /kg	g/m ²
	50 - 90	74 - 133	13.6 - 7.6	4.5 - 2.5	-
	60	89	11.3	3.8	265

Room Temperature	min 10°C	Max 40°C	Relative Humidity	min 5%	Max 80%
Mixing Ratio	5 - 1,25 - 25 (by weight)		4,6 -1,2 -3,5 (by volume)		
Pot life	4 h				
Thinner/Cleaner	clear water (max. 5% by weight)				

Application methods

Airless or conventional spray, brush (only for stripe coating).
NOTE: mix all the Comp. A with all the Comp. B. Add slowly and always under mixing the zinc powder. Mix accurately until complete homogenization of mixture. For mixing, you should use a toothed wheel (type Cowless). Pass the mixture through a sieve of 50 meshes. Continuously stir the paint at low speed during application.
COMMENTS: Possibility of blistering if you exceed the thickness of 100 micron.

Guideline for airless spray

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

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SURFACE PREPARATION

the substrate must be clean and dry. Surface contamination is to be removed by detergents and fresh water cleaning. Blast cleaning to min. Sa 2, power tool cleaning to min. St 2. Improved surface treatment (blast cleaning to Sa 2,5) will improve the performance.

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 ¹	Hard Dry ²	Cured ³	Dry to recoat ⁴	
				minimum ⁵	Maximum ⁶
10°C		1 - 1,5 h	48 h	6 h	-
20°C		30 - 45 min	24 h	4 h	-
30°C		30 min	24 h	3 h	-

- 1
- 2 Data resulted by tests and experience in pratical applications. A good ventilation can improve the drying time.
- 3 Data resulted by tests and experience in pratical 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 coates, 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 12 months at room temperature.

PACKAGING 5 kg comp. A, 1,25 kg comp. B and 25 kg Comp. C (31,25 kg KIT A+B+C)

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 contitions 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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