

Technical Data Sheet

HYDROSILICATE Zinc

Serie 160480

PRODUCT DESCRIPTION

Two-components water-based inorganic zinc rich primer in accordance to regulatory SSPC Paint 20 level 1 resistant to an operating temperature up to 400°C.

Is supplied with zinc dust ASTM D520 Type III. HYDROSILICATE Zinc contains 94% by weigh of zinc powder in dry film.

INTENDED USES

HYDROSILICATE Zinc can be used as a single coat or as a primer for systems completed with HYDROGUARD HB MIO and HYDROTHANE topcoat for protection of structures exposed up to CX class according to standard ISO12944.

Can be coated with HYDROTHERM brand topcoat for protection of steel structures operating up to 400°C. This product contributes to the Green Buildings standard credits for LEED certification.

TECHNICAL INFORMATION

Product type	Water based zinc rich silicate			
Colours	Grey			
Solids (% +/- 2)	56 (by Volume)	86 (by Weight)	SOV/VOC (g/liter)	18,96 Directive 2004/42/CE
Specific Gravity (g/liter +/- 100)	3250		SOV/VOC (g/liter) (calculated)	33,32 Directive 2010/75/CE
Flash Point (°C +/- 2)	not flammable			
Appearance	matt			
Temperature Resistance (°C)	up to 400			

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 - 150	90 - 268	11.2 - 3.7	3.4 - 1.1	-
	75	134	7.5	2.3	436

Room Temperature	min 10°C	Max 40°C	Relative Humidity	min 5%	Max 80%
Mixing Ratio	1 - 4 (by weight)		1,6 - 1 (by volume)		
Pot life	5 h				
Thinner/Cleaner	Clear water (ready to use do not thin).				

Application methods

Airless or conventional spray.

NOTES: mix all the Comp. A add slowly and always under the zinc powder. Mix accurately until complete homogenization of mixture. Pass the mixture through a sieve of 50 meshes. Continuously mix the paint at low speed during application. If it's applied to dry thicknesses exceeding 175 micron, the dry film can lead to mudcracking and Pull Off Test values lower than 5MPa.

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

STEEL: remove all traces of dirt and grease. Sandblasting at grade Sa 2.5 minimum as defined in the ISO 8501-1 standard, medium roughness profile as defined in the ISO 8503-2 standard.

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		45 min. - 1 h	2 h	6 h	-
20°C		30 - 45 min.	1 h - 1,5 h	4 h	-
30°C		20 - 30 min.	45 min. - 1 h	2 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
- 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 contaminants before applying the next 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 comp. A and 12 months comp. B at room temperature
PACKAGING 6,25 kg comp. A and 25 kg comp. B (31,25 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 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.