ZINC SILICATE PRIMER RHR-105

PRODUCT DESCRIPTION

RHR-105 is a three component moisture curing inorganic zinc ethyl silicate coating. It is a fast curing, very high zinc dust containing product.To be used as primer in a coating system and as single coat system in atmospheric environments. It conforms to the compositional requirements of ISO 12944-5. Suitable for properly prepared carbon steel substrates only. **Recommended for** offshore environments, refineries, power plants, bridges, buildings, mining equipment and general structural steel. Specially designed as a primer for coating systems where extended durability is required.

GENERAL PROPERTIES

Adhesion	Min. 4B on Sa2 ½ blasted and cleans surfaces.
Temperature resistance	• Resistant to permanent dry temperatures up to 400°C. • Resistant to occasional short-term heating (peak temperatures) up to 420°C .
Zinc content in dry film	80±2%

PHYSICAL PROPERTIES

Colors/Shade No	Grey
Finish	Semi flat-matt
Volume Solid	57±3 %
Theoretical spreading rate	9.5 m2 /liter 60 Mic. Dft.
Flash point	25 °C
Specific gravity	2.65±0.05 kg/liter
V.O.C.	Max. 455 gr/liter
Shelf life	6 Months (25°C) from time of production. Shelf life is dependent on storage temperature. Shelf life is reduced at storage temperatures above 25°C. Do not store above 40°C.

MIXING

Mixing ratio (by weight)	Component A: 5	Component B: 5	Component C: 20
Pot life	4 hours (23 °C)		

APPLICATION

Conditions	The surface must be completely clean and dry with a temperature above the dew point to avoid condensation. At temperatures ranging from -10°C to 40°C.Curing needs minimum 65% relative humidity.	
Method	Airless sprays	Brush (touch-up): Recommended for stripe coating and small areas. Care must be taken to achieve the specified dry film thickness. In order to avoid settling of heavy zinc, continuous mechanical stirring during application is recommended.
Thinner (max. vol.)	RTH-107 (2-3%)	RTH-107(2-3%)
Spray setting		
Pump ratio minimum	30:1	
Tip size	0.017” – 0.021”	
Tip pressure	100 bar / 1500 Psi	
Cleaning of tools	RTH-107	
Indicated film thickness, dry	50-80 microns	
Indicated film thickness, wet	100-160 microns	

DRYING AND CURING TIMES

Condition	The drying and curing times, as well as over coating intervals for inorganic zinc ethyl silicates are measured under controlled temperatures, relative humidity (RH) 65 % during application and curing, and at average of the DFT range for the product. Higher RH will increase the curing speed.
Surface temperature	23 **°C**
Dry to touch	30 min
Full curing	Max.3 days (Curing needs minimum 65% relative humidity)
Recoat interval, min	4 hours (must be fully cured before recoating)
Recoat interval, max	None

APPLICATION AND CURING CONDITIONS

Surface condition To secure lasting adhesion to the subsequent product all surfaces shall be clean, dry and free from any contamination.

Substrate	Surface preparation	
	Minimum	Recommended
Carbon steel	Sa 2½ (ISO 8501-1) with a surface profile Fine to Medium G (ISO 8503-2)	Sa 2½ (ISO 8501-1) with a surface profile Fine to Medium G (ISO 8503-2)

REMARKS

Subsequent coat	Epoxy mid coat REP-202
Film thickness	If top coated with a heavy- duty system, 50 micron dry film thickness is recommended. For long-term protection without topcoat, 75 micron dry film thickness is generally recommended. In tanks 100 micron is recommended.
Thinning	The type and amount of thinner depend on application conditions, application method, temperature, ventilation, and substrate. Thinner RTH-107 is recommended in general.
Recoating	Minimum interval at 20°C, 65-75% RH for recoating with: REP-202 4 hours. Recoating intervals are strongly dependent on both temperature and humidity. Deviations from the standard conditions may shorten or prolong the recoating intervals.

(i) *A completely clean surface is mandatory to ensure inter coat adhesion, especially at long recoating intervals. Any dirt, oil, and grease have to be removed, e.g. with suitable detergent.*

(ii) *Salts to be removed by fresh water hosing. To check an adequate quality of the surface cleaning a test patch is recommended before actual recoating.*

SAFETY

Handle with care. Before and during use, observe all safety labels on packaging and paint containers, consult RSI material safety data sheets and follow all local and national safety regulations. Harmful or fatal if swallowed; immediately seek medical assistance. Avoid inhalations of possible solvent vapors or paint mist, as well as paint contact with skin and eyes. Apply only on well-ventilated areas and ensure that adequate forced ventilation exists when applying paint in confined spaces or when the air is stagnant. Always take precautions against the risks of fire and explosions.