APCOSIL 605 PRIMER

Inorganic zinc ethyl silicate

PRODUCT DESCRIPTION

A two component solvent based moisture curing inorganic zinc ethyl silicate coating

FEATURES AND RECOMMENDED USE

- Designed as a primer coat for application in aggressive environments
- Good resistance to saline and marine/ offshore atmosphere
- Excellent water and solvent resistance
- Can withstand substrate temperatures from -90°C to +400°C, under normal atmospheric exposure conditions
- With suitable top coat, provides excellent corrosion protection for steel substrate upto +600°C

TECHNICAL DATA

Colour	Grey
Gloss	Matt
Volume Solids	60 ± 3%
Recommended DFT / Coat	50 - 75 microns
Theoretical Coverage Capacity	12 sq.mtr/ ltr @ 50 microns DFT 8 sq.mtr/ ltr @ 75 microns DFT
Drying Time	Surface Dry : 30 minutes Hard Dry : 16 hours Full Cure : 7 days
Over coating interval with recommended topcoats	Min. : 16 hours Max. : Unlimited, provided surface is free from any contamination, corrosion and zinc salt
Method of Application	Air Spray and Airless Spray

The data given is for guideline only. The physical values are subject to normal manufacturing tolerances, colour and testing variances.
The actual drying time/ overcoat interval may be shorter or longer, depending on film thickness, ventilation, humidity, temperature etc.
The information provided above is at 30°C and 65% relative humidity.

DIRECTIONS FOR USE

Surface Preparation

General:

- Surfaces must be dry, clean and free from contaminants
- Ensure removal of dirt, dust, oil and all other contaminants that could interfere with adhesion of the coating. Oil and grease should be removed as per SSPC-SP1 solvent cleaning
- Surface should be checked and treated in accordance with ISO 8504 prior to priming

Blast Cleaning:

- Steel, abrasive blast clean to min. Sa 2½ (ISO 8501-1:200) or SSPC–SP6. Incase oxidation has occurred between blasting and application of Apcosil 605 Primer, the surface should be reblasted. A blasting profile of (Rz) 40-70 microns is recommended
- Galvanised steel; sweep blast to roughen the surface and to remove any zinc salts that may be present
- Heavily pitted steel is not acceptable

Application Conditions

- Substrate temperature should be at least 3°C above dew point but not above 50°C
- Relative humidity should be above 50%
- Good ventilation is required in confined areas to ensure proper curing

Mixing

- Apcosil 605 Primer is supplied in 2 packs, liquid component (hydrolysate) and a powder component (zinc dust). Do not open packing until just before use. Loosen the settled material in the liquid portion, if any, with the help of hand stirrer followed by power stirrer for quick homogeneous mixing
- Add zinc dust gradually to the hydrolysate under stirring. Continue stirring until mixture is homogeneous. (Do not mix in reverse order. It may result in lump formation in the paint). Strain mixture through a 30-60 mesh screen. Maintain constant agitation of the mixture until the batch is depleted. Once the unit has been mixed, it should be consumed within the working pot life

Mixing Ratio (by weight)	Hydrolysate : Zinc Rust 65 (Liquid) : 35 (Powder)
Induction Time	None
Pot Life at 30°C	6 Hours

Application

Brush / Roller	Not Recommended
Air Spray	
Recommended thinner	T - 144
Volume of thinner	10 - 25%
Nozzle orifice	2.0 - 3.0 mm
Nozzle pressure	0.3 - 0.4 MPa (= approx. 3-4 atm; 43-57 p.s.i)
Airless Spray	
Recommended thinner	T - 144
Volume of thinner	10 - 25%
Nozzle orifice	0.48 - 0.64 mm
Nozzle pressure	15 MPa (= approx. 150 atm; 2100 p.s.i)

Cleaning

Do not allow the product to remain in hoses, gun or spray equipment. Clean all equipments immediately after use with Thinner T 144.

Product Characteristics

- While application, the spray gun should be at a sufficient distance from the surface to get a wet and smooth coating. Besides using a correct spray technique, the amount of thinner added must be carefully adjusted to secure optimum film formation. The coating must be wet and smooth just after application
- Inorganic Zinc Silicate Primers are sensitive to environmental conditions for drying and curing. This product requires minimum relative humidity of 50% and minimum steel temperature should be 10°C. In case skin temperature of steel is more than 40°C spraying shall be done by extra thinning to avoid dry spray application. At Relative humidity below 50%, curing will be severely retarded. The curing at low humidity may be promoted by spraying fresh water after 4-6 hours of application of primer and keeping the surface constantly wet until curing is complete
- High deposition of film thickness (>125 microns) can result into mud-cracking while lower dry film thickness can affect the performance of coating. Incase of mud cracking, complete removal of the affected areas by abrasive blasting and re-application as per original specification is recommended
- Untopcoated Apcosil 605 Primer is not suitable for immersion in alkaline (more than pH 9) or acidic (less than pH 5) liquids without suitable topcoats

Overcoating and Topcoats

- Before overcoating with recommended topcoats, ensure Apcosil 605 Primer is completely cured.
- Prior to overcoating, Apcosil 605 Primer must be clean, dry and free from soluble salts and zinc corrosion products. Zinc rich primers, when exposed for extended periods of time without proper top coating, will start showing white rust formation. These 'white rust' spots are zinc corrosion products. The extent of white rust formation will depend on the period of exposure of the zinc rich coating and the nature of the surrounding environment. Prior to application of the subsequent coats, it is necessary to ensure removal of the white rust
- Zinc rich coatings are porous and hence pinholes may occur in the subsequent coat due to solvent popping. To minimize pinholes, apply a mist coat as the first pass of the subsequent coat, let the entrapped air escape and then apply full coat
- Apcosil 605 Primer may be topcoated with epoxies, chlororubber, acrylics, polysiloxanes, heat resistant silicones and others as recommended by Asian Paints PPG representative

PACK SIZE	20 ltrs
STORAGE	**Shelf Life:** Atleast 6 months @ 30°C for original unopened pack, subject to inspection thereafter. Store in a cool, dry place and in accordance with local regulations
REGULATORY INFORMATION	**Flash Point:** Liquid - Not less than 15°C Powder - Not less than 65°C **VOC:** 485 - 535 gm/ ltr as per USA-EPA Method 24

SAFETY INFORMATION

- As a general safety measure, inhalation of solvent vapours or paint mist and contact of liquid paint with skin & eyes should be avoided. Forced ventilation should be provided when applying paint in confined spaces or stagnant air. Even when ventilation is provided, respiratory, skin and eye protection is always recommended while spraying paint
- Please refer our Material Safety Data Sheet prior to using the product

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