



Advance Coat IOZ

High Performance Inorganic Zinc Rich Primer

Generic Type :

Two pack inorganic zinc rich primer base on ethyl silicate reinforce by grade 1 zinc dust anti-corrosive pigment.

Description :

Advance Coat IOZ is a Inorganic Zinc rich primer system use as anti corrosive primer for steel structure. It have excellent chemical, water and salt water and oil resistance with good adhesion properties. It give prolonged weather resistance and corrosion protection by galvanic protection. It can withstand up to 420 °C and can be apply up to 100 microns without cracking

Typical Uses :

Can be used as protective anti corrosive primer for steel structure where long term protection against corrosion is require. Chemical Plant and factories
Bridges
Vessel
Off shore structures

Physical Data :

Color : Grey
Flash Points : Base 15 °C ; Powder - °C
Zinc Content : 70 +/- 2% (by solid)
Purity of Zinc : Min 95%
Volume solid : 58 +/- 2%
Shelf Life @ 20°C/indoor : 6 months

Application Details

Mixing Ratio: Base : Powder =45:55 (by wt)
Base : Powder =4:1 (by Vol)

Drying Time(at Dry Film Thickness 75µ)	Temperature	10°C	20°C	30°C
	Surface Dry	30 min	20 min	10 min
Hard Dry	5 hrs	4 hrs	3 hrs	
Painting interval:	Minimum	24 hrs	18 hrs	10 hrs
	Maximum	-	-	-
Pot life / working life		14 hrs	10 hrs	7 hrs
Theoretical coverage (at DFT 75µ)	0.13 L/m ² ; 270 g/m ²			
Service temperature	-20 to 420 °C (dry)			

Application Data :

Application Method : airless spray,, brush

Mixing : Power mix the base separately and then
Procedure : combine and power mix for at least two minutes or until homogeneous. When mixing partially, it is critical to follow to the mixing ratio as stated to ensure proper cure and film properties. Constant stirring is require during spraying to prevent settling of zinc dust.

Curing schedule : Complete curing – 7 days. Higher film thickness, insufficient ventilation, or lower temperature will require longer cure time. Excessive thickness will cause cracking problem. If the paint is not fully cured, water exposure may cause whitening.

This product requires the substrate temperature to be above the dew point (+ 3~5 °C). Condensation due to substrate temperatures below dew point can cause flash rust on metal and adhesion will be affected.

Application procedure :

Mix properly the two component before use.

- Flush equipment with thinner or AC Thinner B before use.
- Mix the base and powder according to the stated ratio until homogeneous. Observe the pot life, at higher temperature, the pot life will be shorten.
- Thin only if necessary for workability.
- Filter by 100 mesh and install filter mesh to suction pump to prevent choking of spray nozzle.
- When applying by conventional spray, use adequate air pressure and volume for proper atomisation.
- Apply a wet coat in even parallel passes, overlap 50% to avoid holidays and pin hole.
- Precaution have to be taken to prevent spray dust, in case of high temperature, slow thinner may be required.
- Clean up all equipment with thinner or AC thinner B immediately after use and flush the line when there is a break.
- Keep containers tightly close and store in proper storage area.

Condition of Application :

Use brush for touch-up only . Apply at specified thickness, ideally 75 – 100 microns .

Temperature : Minimum 5 – 50 °C
Humidity : Maximum 50 - 95 % R.H.
For Airless spray :-
Tip Size : Graco 419 or equivalent
Paint Output pressure : 150 – 180 kgf / cm²
Viscosity : 10 – 15 second (ford cup no 4)
Thinning : 0 – 10 % by volume



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Surface Preparation

General : Surfaces must be clean and dry, all contaminants like dirt, dust, oil must be removed by appropriate method to ensure good adhesion

Steel : Grit blasting to ISO Sa2.5 or SSPC SP10 and above
Surface profile : 45 – 100 microns

Clean-up : Use AC thinner B or alcohol for cleaning. Observe safety precaution when use the solvents. In case of spillage, absorb and dispose the material and used container according to local required regulation or through licence waste collector.

Performance Data :

Properties	Test Method	Evaluation
Adhesion	ASTM D4541	400 psi
Salt Spray	ASTM B117	2000hrs / rust scale > 8
Cyclic Salt Fog	ASTM D5894:05	2000hrs No blistering, rusting and rust creep from scribe
Outdoor Exposure	JISK5400-1990	6 months / no rust
Bending test	ASTM D522	10 ⁰ using 1inch mandrel
Impact Resistance	ASTM D2794	60 IP/ $\phi < 8$ mm

*For bending purpose, maximum thickness is 75 μ . for R>24m.

Safety Precaution and Clean-up

Safety : Read and follow the material safety data sheet (MSDS) before use. Employ normal safety precaution. Put on necessary personal protection equipment when handle and use this product.

Ventilation : when working in a confined workplace, thorough air ventilation must be used during and after application until the coating is cured. The ventilation system should be effective to prevent solvent vapour concentration from reaching lower explosion limit for the product and to ensure exposure limit to the personnel to be below permissible exposure limit.

Caution : All electrical equipment and installations should be made and properly grounded. In areas where explosion hazard exist, workmen should be used non-ferrous tools, conductive and non-sparking shoes.

Disclaimer

Data, specifications, directions and recommendations given in this data sheet represent test results or experience obtained under controlled or specially defined circumstances. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by user. The products are delivered and any technical assistance is given subject to our GENERAL CONDITIONS OF SALE, DELIVERY AND SERVICE and, unless otherwise expressly agreed in writing, manufacturer and seller assume no liability in excess of that stated therein for results obtained, injury, direct or consequential damage incurred from the use as recommended above or otherwise.

Product data are subject to change without notice and automatically void two years from issue.

Limited Warranty

Whilst we endeavour to ensure that all advice we give about this product is correct and manufacture according to standard quality control system, however we have no control over either the quality or condition of the substrate or many other factors affecting the use and application of the product. Therefore, unless we specifically agree in writing to do so, we do not accept any liability whatsoever or howsoever arising for the performance of the product or for any loss or damage arising out of the use of this product.