

Zinc -0- Sil 75

EIL: F-9

PRODUCT DESCRIPTION

Low VOC, Two components high build, Inorganic Zinc Silicate primer containing 80% metallic zinc by weight in dry film & meets to the Criteria of SSPC -Paint 20 Type -I and Level – II

Based on ASTM-D- 520 Type II Zinc and impart cathodic protection to steel surface under humid and corrosive atmosphere

INTENDED USES

For application cleaned and neatly prepared steel structure where Galvanic Protection is desired.

Provides excellent anchoring to the surface as well as galvanic protection. For protection in industrial, coastal structures, pulp and paper plants, bridges and offshore environmental in atmospheric exposure.

PRACTICAL INFORMATION FOR Zinc- 0- Sil 75

Color	Grey.
Gloss Level	Matt Smooth
Volume Solids	60%
Typical Thickness	60-75 microns dry /coat
Theoretical Coverage	8 m /litre at 75 microns D.F.T. at stated volume solids
Practical Coverage	Allow appropriate loss factors
Method of Application	Air -Spray Airless spray, Brush
Drying Time & Over Coating Intervals.	
	Over coating Interval Of zinc- o- Si175 with
	Over coating Interval with recommended topcoats

Temperature	Touch	Hard	Minimum	Maximum	Minimum	Maximum
	Dry	Dry				
25°C (77°F)	10 Min	20 hours	N / A	N / A	16 hours	Refer Product characteristics
45°C(104°F)	15 Mins	16 hours	N / A	N / A	8 hours	Refer Product characteristics

REGULATORY DATA

Flash Point	Base (Part A) 26°C	C/A (Part B) NA	Mixed NA
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PRODUCT CHARACTERISTICS

In order to achieve optimum performance on neatly prepared steel, Maximum film build in one coat is best attained by airless spray. Avoid using high pressure ratio pumps as this will lead to dry spray. Low or high temperatures may require specific application techniques to achieve maximum film build.

With freshly blast cleaned surfaces a slight degree of flash rusting is allowable, and is preferable to the surface being too wet. Puddles, ponding and accumulations of water must be removed.

Zinc-O-Sil is not recommended for continuous dry temperature above 400°C. However when top coated with Heat Resistant Silicone can be recommended in dry temperature exposure 540° C.

Surface temperature must always be a minimum of 3° C (5° F) above dew point. For the complete cure of Zinc Silicates RH (Relative Humidity) must be > 50 % all the time during the application as well as cure . In case of low RH, it is always recommended to gently sprinkle water on the coated surface or by creating artificial Humid conditions.

Level of surface finish is dependent on application method. Avoid using a mixture of application methods whenever possible.

Zinc -0 -Sil is capable of being applied up to 100 Microns DFT in a single coat as a part of Protective coating system as per ISO-12944 In common with all Inorganic Zinc Silicates, Zinc - 0-Sil will have mud cracks when applied at higher DFT above 125 Microns. However, these phenomena can be controlled by applying the correct DFT. Mud Cracks is detrimental to anti-corrosive performance.

Zinc -0- Sil must be tested for degree of cure as per ASTM-D 4752 by using MEK (Methyl Ethyl Keton)

Do not over coat uncured Zinc silicates . Zinc Silicates film is porous and hence mist coat application of the subsequent coat is always recommended or a thin film primer such as Pentadur ZP 8531 can be applied to 30-40 microns thickness .

While over coating weathered Zinc-O-Sil it is always recommended to have surface free of any Zinc Corrosion products such as white rust . It must be removed either by high pressure water jetting or by abrading the surface with hand tools.

SYSTEMS COMPATABILITY

Zinc -0-Sil must be applied on well prepared blasted steel surface.

Zinc -0-Sil is used as Primer in High performance Coating Systems designed as per ISO -12944.

Recommended Top Coats are

Pentaseal Rust Cover 100— All versions.

Pentadur Range of Epoxy Primers & Intermediates.

Pentatherm Range of Heat Resistant Coatings.

Pentathane HS / Pentathane 4510 Top Coats.

Other suitable Coating Schemes as per ISO 12944 are available.
Consult Grauer & Weil India Ltd.

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SURFACE PREPARATION

The performance of this product will depend upon the degree of surface preparation. The surface to be coated must be clean, dry and free from contamination. Prior to paint application all surfaces should be assessed and treated in accordance with ISO 8504:1992. Accumulated dirt and soluble salts must be removed. Dry bristle brushing will normally be adequate for accumulated dirt. Soluble salts should be removed by fresh water washing.

Abrasive Blast Cleaning

For atmospheric exposure best performance will be achieved when Zinc -0- Sil is applied to surfaces prepared to a minimum of Sa2^{1/2} (ISO 8501-1:1988) or SSPC- SP10. Surface defects revealed by the blast cleaning process, should be ground, filled or treated in the appropriate manner. A surface profile of 40-55 microns (1.5-2 mils) is recommended.

It is recommended to carry out touch with Epoxy Zinc Rich or Pentaseal Rust Cover 100 or Pentadur Mastic 5517 in case repair of damaged coating

Aged Coatings

Zinc -0- Sil is NOT suitable for over coating a limited range of intact, tightly adherent aged coatings. It must be applied on the metal substrates to provide galvanic / sacrificial performance.

APPLICATION

Mixing Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed it must be used within the working pot life specified.

1. Agitate with a power agitator Minimum for 15 Min.
2. Add powder to base and agitate till all the lumps are dissolved.

Working Pot Life 8 Hrs at 25° C & minimum > 50 % RH.

Airless Spray/Pressure Pot It is generally recommended to apply by Pressure pot type air assisted airless spray for uniform finish and lower wastage
Recommended - Tip range 0.38 - 0.53 mm (17 - 21 thou)
- Total output fluid pressure at spray tip
Less than 125 kg/cm² (1,500 p.s.i)

Air Spray Recommended Gun DeVilbiss MBC or JGA or Equivalent.
Air Cap 704 or 765
Fluid Tip E.

Thinner Thinner 170 Normally required for ease of application
Add Max. 10 % by Volume.

Work Stoppages Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with Thinner 170. Once units of paint have been mixed they should not be resealed and it is advised that after prolonged stoppages work recommences with freshly mixed units.

Clean up Clean up all equipment immediately after use with Thinner 170. It is good working practice to periodically flush out spray equipment during the course of the working day.

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SAFETY PRECAUTIONS

This product is intended for use only by professional applicators in industrial situations in accordance with the advice given on this sheet, the Material Safety Data Sheet and the container(s), and should not be used without reference to the Material Safety Data sheets (MSDS) which Grauer & Weil India Ltd has provided to its customers.

All work involving the application and use of this product should be performed in compliance with all relevant national, Health, Safety and Environmental standards and regulations.

In the event welding or flame cutting is performed on metal coated with this product, dust and fumes will be emitted which will require the use of appropriate personal protective equipment and adequate local exhaust ventilation.

If in doubt regarding the suitability of use of this product, consult Grauer & Weil India Ltd for further advice.

STORAGE

Shelf Life Part A- B- 9 months minimum at 25 deg C (77 deg P). Subject to re-inspection thereafter. Store in dry, shaded conditions away from sources of heat and ignition

Disclaimer

The data provided in this sheet is not intended to be exhaustive and any person using the product for any purpose other than that specifically recommended in this sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. While we endeavour to ensure that all advice we give about the product either in this sheet or otherwise is correct we have no control over either the quality or condition of the substrate or the many 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 the product. The information contained in this sheet is liable to change from time to time in the light of experience and our policy of continuous product development.

It is the user's responsibility to check that this sheet is current prior to using the product. Issue date: April 2010