



# Polysil ZS80

## ZINC SILICATE

**Product Description:** A two-component, solvent-borne, self-cured inorganic zinc silicate coating. Designed for automatic spray application. Applicable by airless spray machine. Polysil ZS80 is in full compliance with ISO 3549 and ASTM D520 type II.

**Typical Uses:** As a general-purpose rust-preventing primer in paint systems for long-life protection of steel exposed to moderately to severely corrosive environments. In compliance with SSPC-Paint 20, type 1, level 2.

- Features:**
- Service Temperature: Maximum, dry, atmospheric exposure - 540°C [1004°F].
  - Corrosion Protection: Provides excellent corrosion resistance for abrasive blasted steel.
  - Abrasion Resistance: Offers a tough, abrasion-resistant coating.
  - Galvanic Protection: Prevents sub-film corrosion by delivering superior galvanic protection to steel.
  - Compatibility with Coats: Ideal for use with high-build intermediate coats and topcoats, such as Epoxy and Polyurethane Paints

<b>Technical Properties:</b>	<b>Color / Shades</b>	Grey												
	<b>Gloss</b>	Flat												
	<b>Volume Solids</b>	63 ± 2%												
	<b>Specific Gravity</b>	2.3 Kg/L, mixed												
	<b>Mix ratio</b>	4.2:5.8 by weight (Liquid : Powder)												
	<b>Typical Thickness</b>	50-80 microns [2-3 mils] dry equivalent to 79-127 microns [3-5 mils] wet												
	<b>Coverage</b>	12.6 m <sup>2</sup> /liter at 50 microns DFT (Theoretical)												
	<b>Flash Point (Typical)</b>	14°C [57.2°F], mixed												
	<b>VOC</b>	< 355 g/L												
	<b>Reducer/Thinner</b>	Thinner Z1												
	<b>Cleaner</b>	Thinner C1												
	<b>Drying Time</b>	<table border="1"> <tr> <td><b>Surface Temperature</b></td> <td>20°C</td> </tr> <tr> <td>Touch</td> <td>15 minutes</td> </tr> <tr> <td>Hard Dry</td> <td>12 Hours</td> </tr> <tr> <td>Overcoating Interval</td> <td>Minimum: 18-22 Hours Maximum: 6 Months</td> </tr> <tr> <td>Cure to Service</td> <td>18-22 hours &amp; relative humidity above 65%</td> </tr> <tr> <td>Pot Life</td> <td>3 to 4 Hours, mixed</td> </tr> </table>	<b>Surface Temperature</b>	20°C	Touch	15 minutes	Hard Dry	12 Hours	Overcoating Interval	Minimum: 18-22 Hours Maximum: 6 Months	Cure to Service	18-22 hours & relative humidity above 65%	Pot Life	3 to 4 Hours, mixed
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The drying times mentioned are based on a dry film thickness of 50 microns (2.0 mils) under standard conditions.



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**Surface Preparation:** All surfaces should be clean, dry, and free from contamination. The surface should be assessed and treated in accordance with ISO 8504.

Abrasive blasting to min Sa 2½ Swedish Standards (ISO 8501-1)/SP10 (SSPC) is a must with a blasting profile as per medium (G) (ISO 8503-2). The surface should be absolutely dry, oil and salt-free before application of the primer. The primer should be applied preferably immediately or within 3 hours after blasting for best performance. In case it is extended; the surface should be cleaned by sweep blast to remove any flash rust that may have formed.

Application	Application Method	Thinning	Application Parameters
	Spray	10-15%	Conventional Spray / Airless Spray
	Brush and Roller	-	Not Recommended for large areas, only for small areas apply by brush.

For brush application, use nylon or polyester bristles. A 3/8" woven roller cover with a solvent-resistant core should be used for roller application.

**Note:**

- The material is supplied in two containers as a complete unit. Always mix the entire unit in the proportions provided.
- Stir the base & Hardener separately.
- Mix hardener gradually into the base under continuous stirring as per the mixing ratio.
- Once the unit has been mixed, it should be consumed within the working pot life.
- Thinner should be added after mixing the components and post the induction time.
- Addition of Thinner as per recommended ratio in the range between 10-15 %

**Application Conditions** Open the packing just before use. Take the Liquid part in a clean container and add zinc dust gradually by weight into it as per the recommended ratio, under slow constant power stirring. Stir the mix gently to attain homogeneity. Add Thinner Z1 into the mix and stir gently for a few minutes. Strain the mixture through 60-80 mesh screens and apply uniformly over the surface. All equipment used for the above should be properly cleaned. Brush application is not recommended on large areas, only for small areas apply by brush.

**System Cleaning** Thoroughly flush the application equipment with Thinner C1 both before and after application to maintain equipment efficiency and coating quality.

**Filters size and cleaning procedure:**

Filters should be cleaned, both in the pump and the spray gun after a certain frequency to avoid coating system chock-up and filters' recommended sizes shall be 80 and 100 mesh to smooth and trouble-free operation.



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### Storage

**Shelf Life:** 6 Months for Silicate (Liquid) & 24 months for Zinc (Powder), Sealed Condition

**Storage Conditions:** Store indoors below 40°C [104°F]

The product must be stored in accordance with national regulations. Keep the containers in a cool and dry place and well-ventilated area with no direct source of heat or light. Containers must be kept tightly closed when not in use.

**Safety:** Handle with care. Before & during use, observe all safety labels on packaging and paint containers, consult Material Safety Data Sheets, and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin & eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well-ventilated areas.

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