

WB HRZS[®] Primer

Technical Bulletin

WB HRZS[®] Primer is a state-of-the art, 100% WaterBorne High Ratio Zinc Silicate engineered specifically as a primer on steel surfaces for use with all major Polyset high performance topcoat products.

WB HRZS[®] Primer is built upon NASAs original formulation. When applied at the recommended dry film thickness of 3.0 - 4.0 mil (51– 76 µm), WB HRZS[®] Primer provides a chemically bonded surface ready for top coating in as little as 2 hours under normal conditions.

Key Features

- High ratio potassium silicate (5.3:1)
- Excellent adhesion to steel (chemical bond), will not undercut
- Waterborne/Zero VOC
- Self cure (air-dry), heat cure if desired
- High Temperature resistance (750°F)
- Meets or exceeds 5000 hour salt fog spray without deterioration (ASTM B117)
- Cathodic protection of steel, even in damaged areas
- Excellent primer system for polysiloxane, polyaspartic, polyurea, acrylic, mastic epoxy, and non-skid top coat systems

Uses

Superb corrosion resistance for severe environments, such as:

- Marine (ships, off-shore rigs, buoys, etc.)
- Bridges
- Pipelines (buried and above ground)
- Hydro (water control gates, turbines, trash racks, etc)
- Railcars
- Storage Tanks

Surface Preparation

All surfaces to be coated prepared to SSPC-SP10, Near-White finish with a minimum of 1.0 mil profile.

**FOR APPLICATION INSTRUCTIONS & EQUIPMENT, PLEASE CONSULT
YOUR POLYSET TECHNICAL REPRESENTATIVE.**

Mixing

While mixing, add Part B (Metallic Zinc Powder) to Part A (Silicate) with constant stirring. **Do NOT ADD PART A TO PART B.** After mixing, pour the product through a 40-mesh screen into a pressure pot or second pail. Continually agitate while applying mixed materials.

Product Specifications: *(All readings taken at 25°C, unless noted)*

Part A: Liquid Silicate Binder
Viscosity (cPs); ASTM D2196: 20–40
Appearance: Clear Liquid
Part B: Fine Metallic Zinc Powder
(ASTM D520)

Mix Ratio:

Parts by Weight: 1.00 Part A : 2.55 Part B
Parts by Volume: 2.33 Part A : 1.00 Part B

Mixed Properties:

Viscosity (cPs): 120 ± 20
Color: Gray/Matte
Density (Lbs./Gal.): 25.0 ± 0.2
Density (kg/L): 3.00 ± 0.1
Solids in Mixed Solution (wt. %): 80 ± 2
Solids in Mixed Solution (vol. %): 68 ± 2
Zinc in Dry Film (wt. %): 91 ± 2
Zinc in Dry Film (vol. %): 77 ± 2
Estimated Coverage: 1090 ft²/ Gal. @ 1.0 mil DFT
Pot Life: 6–8 Hrs @ 70°F
Recommended Dry Film Thickness: 3.0–4.0 mils DFT
VOC Content: 0
Drying Time:
Set to touch: 15–30 Minutes
Initial Cure: 2–3 Hours

Shelf Life: 1 year in the original, unopened containers
Storage: Store between 60–95°F (16–35°C)

FOR PROFESSIONAL USE ONLY

Impervious gloves, protective clothing, & splash resistant goggles are recommended. Direct contact with skin should be avoided as it may cause irritation. Harmful if ingested. Keep from open flames.

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