

WB HRZS[®] Single Coat System

Technical Bulletin

WB HRZS[®] Single Coat System is a state-of-the-art, 100% WaterBorne High Ratio Zinc Silicate designed to protect steel structures. Originally developed by NASA to protect launch gantries from highly corrosive coastal ocean environments, **WB HRZS[®] Single Coat System** has been utilized successfully on many steel structures in Marine, Hydro, Military, and many other industries where high performance products are required.

Key Features

- 100% WaterBorne High Ratio Zinc Silicate (Inorganic)
- Excellent adhesion to steel (chemical bond), will not undercut
- Provides both galvanic and cathodic corrosion protection
- Single coat system, no topcoat required
- Self-curing (air dry)
- Passes hot seawater erosion test (MIL-P-23236)
- 10,000+ hour successful salt fog testing (ASTM B117)
- High temperature resistance (750°F)
- UV resistant
- NACE TM0304 approved
- High abrasion resistance
- Hard-fouling resistance to zebra mussels, barnacles, etc.
- 0 VOC

Uses

- Marine (ships, offshore rigs, dry-docks, barges, etc.)
- Railcars
- Hydro (gates, trash racks, turbines, etc)
- Storage Tanks
- Bridges
- Pipelines (buried or above ground)

Surface Preparation

All steel surfaces should be prepared to SSPC-SP10, Near-White Metal with a minimum of 1.0 mil profile.

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 the mixed product.

Product Specifications:

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:

Color:	Gray/Matte
Viscosity (cPs):	120 ± 20
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 ft ² / Gal. @ 1.0 mil DFT

Pot Life : 6–8 Hrs @ 70°F

Recommended Dry Film Thickness: 6-8 mils DFT

VOC Content: 0

Drying Time: 15–30 Minutes @ 77°F

Application: Automated or conventional spray. Contact your Polyset Technical Representative for equipment recommendations.

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, and splash-resistant goggles are recommended. Direct contact with skin should be avoided as it may cause irritation. Harmful if ingested. Keep from open flames.

FOR ADDITIONAL APPLICATION INSTRUCTIONS AND EQUIPMENT, PLEASE CONSULT YOUR POLYSET TECHNICAL REPRESENTATIVE.

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