

## Eco-Zinc™

## Technical Bulletin

Eco-Zinc™ 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.

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

### Uses

#### 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

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 ft<sup>2</sup>/ 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.

**Limited Warranty:** Polyset Company Inc. makes no warranty, expressed or implied, including any warranty of merchantability of fitness for a particular purpose. The sole remedy of Purchaser for any claim concerning this product, including, but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the discretion of Polyset Company Inc. Any claims concerning this product shall be submitted in writing within one year of the delivery date of this product to Purchaser and any claims not presented within that period are waived by Purchaser. IN NO EVENT SHALL POLYSET COMPANY INC. BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDES LOSS OF PROFITS) OR PUNITIVE DAMAGES. Copyright © 2017 Polyset Company, Inc. All rights reserved. Revised 1/11/17