

E-Seal 1000 Interim

High Performance Multi-Purpose Sealer for Zinc/Chromated Surfaces

E-Seal 1000 is a high performance corrosion resistant polymer sealer that provides over 300 hours to white and 500 hours of salt spray protection to red rust when applied over zinc plated (**zinc plating thickness 0.0003"**) parts in **E-Brite Ultra Alk** or **E-Brite Ultra Chlor** plating baths and chromated in **E-Chrome** hexavalent or trivalent chromates. **E-Seal 1000** is a concentrated liquid that is diluted to 15-25% by volume with tap water.

Traditional silicate seals work in most applications with limitations. **E-Seal 1000** can be applied to all E-Chrome hexavalent chromates clear, yellow and black plus all **E-PASSivate** trivalent chromates offering 3-5 times longer corrosion protection to white corrosion per ASTM B-117.

E-Seal 1000 does not significantly change the thickness of the plated part, works over different chromate films and is utilized in the final dip.

Equipment

Tanks should be constructed of polypropylene, PVC, Koroseal lined carbon steel or stainless steel.

Solution Make Up

Fill the tank to 2/3 of the way with water. Carefully pour **E-Seal 1000** to obtain the desired concentration – avoid spattering. Wear safety glasses, gloves and apron. Add water to working level.

| | <u>Range</u> | <u>Optimum</u> |
|----------------|------------------|----------------|
| Concentration | 15-25% by volume | 20% by volume |
| Temperature | 65-80°F | 70°F |
| Immersion Time | 30-60 seconds | 30 seconds |

Processing Procedure

1. Zinc or cadmium plated surfaces
2. Thorough cold water rinse will prolong the life of chromate.
 - a.) Optional 1% Sulfuric Acid to neutralize residual plating solution with barrel processed work.
 - b.) Cold water rinse
3. Immersion in **E-Chrome** or **E-PASSivate** (see respective product data sheet).
4. Cold water rinse

5. **E-Seal 1000.** For optimum corrosion resistance the immersion time must be kept to a minimum. Maximum immersion time – 60 seconds.
6. Hot air dry. Optimum corrosion resistance will be obtained if the temperature of the hot air is kept below 150°F for hexavalent chromates.

Solution Control

The strength of the **E-Seal 1000** working solution can be determined with the following procedures:

1. Pipette 25 ml of the bath into a 250 ml Erlenmeyer flask.
2. Add 2-3 drops of Phenolphthalein Indicator. The color will be pink.
3. Titrate with 1.0N Hydrochloric Acid until the pink solution turns completely clear.

Calculation: % by volume **E-Seal 1000** = ml of 1.0 N Hydrochloric Acid x 5

Caution

This material is alkaline. Do not get in eyes, on skin or on clothing. Do not breathe mists. Do not take internally. When handling, wear goggles or face shield. While making up solutions, or adding to a solution, add slowly to surface of solution to avoid spattering. In case of contact immediately flush skin or eyes with plenty of water for at least 15 minutes. For eyes, call physician.

Do not mix **E-Seal 1000** with acidic materials or any other chemical substances. **Do not** work with **E-Seal 1000** without first reading and understanding the Material Safety Data Sheet furnished by **EPI**.

Packaging

5 gallon and 55 gallon plastic, non-returnable containers. Keep lid on when not in use.

IMPORTANT NOTICE! For Industrial Use Only

The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: sellers and manufacturers only obligation shall be to replace such quantity of the product as proved to be defective. Before using, user shall determine the suitability of the product for its intended use, and user assumes all risk and liability whatsoever in connection therewith. **Neither seller nor manufacturer shall be liable either in tort or in contract for all loss or damage, direct, incidental or consequential, arising out of the use or the inability to use the product.**

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