



# Environmentally Safe Polymers, Inc.

## Technical Data

Updated 11/2004

### **POLYPRIME #01 WATER BASED EPOXY PRIMER**

#### **PRODUCT DESCRIPTION AND USAGE:**

PolyPrime #01 is a two component, water based epoxy. It adheres well to most metals, organic polymers, wood, masonry and vitreous surfaces. Do not use on copper or silver. Usage in the food processing industry is approved for contact with dry food products. PolyPrime #01 meets the requirements of the U.S. Department of Agriculture for incidental contact with meat and poultry products.

#### **COLOR:**

Part A is brown. Part B is an amber clear liquid. The combined product is a reddish brown.

#### **CONSISTENCY:**

Part A is a slightly viscous liquid. Part B is a liquid. When combined, the resulting product becomes a thixotropic easy spreading suspension.

#### **PHYSICAL PROPERTIES**

#### **WEATHERABILITY:**

Chalk resistance is poor. Durability without top coat is only fair.

#### **CHEMICAL RESISTANCE:**

Excellent alkali resistance. Good solvent and fair acid resistance.

#### **HARDNESS:**

Cures to form a hard lusterless coating material. However, approximately 7 days at 60° to 80°F is required to achieve maximum hardness.

#### **WATER VAPOR PERMEABILITY:**

Cures to form a solvent and vapor resistant film.

#### **FLAMMABILITY:**

Part A is non-flammable. Part B is a combustible liquid.

#### **TOXICITY:**

Part B contains a polyamide resin which is non-sensitizing; however, care should be taken to thoroughly clean with soap and water any skin areas that are contacted by PolyPrime #01. Undiluted vinegar is very effective in neutralizing coating that contacts the skin. If the coating should get in the eye, flush with water and call a physician. Use a particulate matter respirator to avoid inhalation of paint particles when spraying.

#### **ADHESION:**

Excellent adhesion to most surfaces. Most coating materials have excellent adhesion to PolyPrime #01.

#### **LIQUID PROPERTIES**

#### **COVERAGE:**

Applied to a smooth surface, the coverage rate is 300 to 400 square feet per gallon.

#### **SOLIDS:**

Weight:	60%
Volume:	42.5%

#### **FLASH POINT:**

Above 212°F T.O.C. for the mixed product and for Part A. Flash point for Part B is above 110°F.

#### **AIR POLLUTION CONTROL:**

The volatile organic solvent content is 80 grams per liter (high flash, aromatic solvent contained in Part B).

#### **STORAGE STABILITY:**

One year. Protect from freezing in shipment and storage.

#### **APPLICATION**

#### **THINNING:**

Thin with water. Clean up with water supplemented with soap or a small quantity of vinegar. Methyl Ethyl Ketone is recommended for both cleaning and drying spray equipment in order to avoid corrosion.

#### **MIXING INSTRUCTIONS:**

The two components are prepackaged in the correct proportions (9 parts by volume of Part A to 1 part of Part B). For a five gallon kit, 4.50 gallons of epoxy emulsion supplied in a 5 gallon can and 0.5 gallons of polyamide resin is supplied in a ½ gallon can. For a one gallon kit, 0.90 gallons of epoxy is supplied in a 1 gallon can and .01 gallons of polyamide resin is supplied in a pint container. The mixing ratio by volume is 9 parts of epoxy to 1 part of curing agent. By weight, the mixing ratio is 14 to 1. After combining, mix thoroughly. Power mixing is recommended for quantities over 1 gallon.

## **POLYPRIME #01**

### **POT LIFE:**

The pot life is 4 hours at 75°F. This can be extended to 6 hours by thinning with water to achieve the original consistency. Pot life at 55°F is doubled, but at 100°F it is reduced to 90 minutes.

### **PRIMER APPLICATION:**

Use long nap (1" to 1 1/4") rollers when PolyPrime #01 is used on porous concrete. If blow holes form as the primer dries, make a second pass with a relatively dry roller. Allow 8 to 10 minutes between passes. For application to smooth surfaces, add up to one pint of water per gallon of PolyPrime #01. Use a 1/2" or 3/4" nap roller or nylon brush. DO NOT apply to surfaces which are below 50°F or above 130°F unless special instructions are secured from Environmentally Safe Polymers, Inc.

### **APPLICATION OF TOP COATS:**

Most coatings can be applied over PolyPrime #01 as soon as it is thoroughly set. This degree of dryness is normally achieved in two to three hours. Where maximum solvent resistance is needed, apply two coats a minimum of two hours apart. Let cure for five days with a daily maximum temperature of 70°F or higher. For 60°F days, allow 10 days. All E.S.P., Inc. polymer coatings and most commercial paint will adhere well to cured PolyPrime #01 up to three months old, provided that the surface is clean and free of chalk.

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Our data is based on information from lab and field testing which we believe to be reliable and accurate. Environmentally Safe Polymers, Inc. makes no warranties, expressed or implied of the products use or its results, and assumes no obligation or liability in connection therewith.