



# PRODUCT DATA SHEET

## PT-500E EPOXY PRIMER

### PTI EPOXY PRIMER SERIES

#### DESCRIPTION

**PT-500E Epoxy Primer** is a low VOC epoxy polyamide solvent primer which conforms to MIL-P-23377 Rev. E. This coating is highly recommended for use on aluminum and plated or un-plated metallic surface to insure maximum protection against corrosion. PTI Epoxy Primer also insures maximum adhesion of PTI TUF/FILM coating, or any other paint or lacquer finish coats. This Primer is intended to be used for aircraft, marine, original equipment manufacturing and/or industrial applications.

#### SPECIFICATIONS

- MIL-P-23377E TY I/II, CL.2/CL.3
- BMS 10-11Y TY. I GR. B
- NAI 1269

#### COLORS

This coating can be provided in yellow, green, dark green and light green per BAC 452.

#### COATING PROPERTIES & CHARACTERISTICS

Mix Ratio, by volume	1 part Paint (Comp A) to 1 part Catalyst (Comp B)
Recommended Dry Film Thickness	0.6 – 0.9 mil
Admixed Viscosity	14 seconds, max #4 Ford
Weight Per Gallon	Component “A” approx. 13 lbs
Weight Per Gallon	Component “B” approx. 10 lbs
Admixed Weight per Gallon	11.5 lbs.
Theoretical Coverage	800 sq. ft. <sup>2</sup> /gal.
Pot Life	8 – 12 hours
Coatings VOC	Below 340 g/L
Salt Spray ASTM B117	1000+ Hours
Humidity (Filiform)	1000+ Hours
Reducers/Thinners	PT-1003 TYII, PT-1002 & ACETONE

#### CHEMICAL RESISTANCE

- |  |            |
|--|------------|
| • Lubricating Oil 24 hour immersion @250F    | NO DEFECTS |
| • Hydraulic Fluid 24 hour immersion @150F    | NO DEFECTS |
| • Methyl Ethyl Ketone-Soaked Cloth 100+ rubs | PASSES     |
| • DS2 (1,5-Dichloropetane)                   | PASSES     |
| • Full Chemical Resistance after             | 7 DAYS     |

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### SHELF LIFE

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Shelf life is only applicable for materials stored in unopened and undamaged original factory filled containers.  
1 year when stored between 50°-85° Fahrenheit.

### SURFACE PREPARATION INSTRUCTIONS

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This primer can be applied directly to metal that has been prepared according to a recognized cleaning method such as Federal Test Method Standard, #141 and Method 2013. It is recommended that all parts be pretreated with PTI's Acid Etching Wash Primer, PT-402 which meets MIL-C-8514. However, parts can also be pretreated with chemical conversion coating materials or alodine.

- Scuff the surface with scotch bright pads.
- Dust off the surface with an air hose and wand.
- Wipe of the substrate with IPA, Acetone or PTC-2002 to remove grime and oils
- Remove all remaining dust and debris by lightly wiping the substrate with a tack or "cheese" cloth
- For additional protection apply PTI's Acid Etch Primer prior to the Epoxy Primer.

### MIXING INSTRUCTIONS

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Shake component A in a paint shaker for 5 – 10 minutes for optimal results.

Admix by volume:

1. Add 1part by volume of Component "A" to 1part by volume of Component "B" and stir thoroughly. Stir each well before mixing. Allow to stand one (1) hour at room temperature before using. Reduce with exempt solvent(s) if required (see use of solvent above).
2. Mix only an amount that can be used in 4-8 hour time period.

Add the Catalyst into the Base.

Admixed material should be allowed a 45-minute induction time for best application results.

**Reduce:** Use reducer PTI-1003 TYII, PT-1002 or Acetone to thin the material.

- If using PTI additives to adjust the dry and cure times of the coating, please refer to those Product Data Sheets for specific instructions for admixing the material.

### APPLICATION

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This product can be applied using brush, roller, conventional air spray equipment or HVLP spray system. Please consult with a PTI representative for specific equipment recommendations and settings.

1. Make sure pots, guns, and lines are purged and cleaned.
2. Mix both base and catalyst thoroughly and filter/strain before spray application.  
**NOTE:** It is not recommended to strain flat/matte coatings.
3. HVLP spray equipment pressure: 7-10psi. Conventional spray equipment 15-25psi
4. Always air-blow and tack wipe the surfaces to be painted. Aircraft should be grounded to prevent static.
5. Best application results: apply 2 coats: 1 fog/tack coat & 1 full coats from 0.6 – 0.9 mil thickness.
6. Do not allow more than 24 hours to pass before applying the second coat.
7. Recommended Dry Film Thickness is 0.6-0.9 mils.



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NOTE: Application of PTI products requires the use of all OSHA approved safety equipment, including proper ventilation. Additionally, PTI products require the recommended temperature/humidity conditions and film thickness ranges for optimal performance. The material, hangar, and aircraft skin temperatures should be no lower than 75° F / 25° C before, during and after application.

### DRYING & CURING SCHEDULE

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Dry times are based on the dry film thickness between 0.6 - 0.9 mils (25-50 microns).

**Air Dry:**

Allow applied coating to dry for at least 1 hour before applying a top coat.

**Force Cure:**

When force curing this primer do not let temperatures exceed 280°F for more than 2 hours

**Always bring the coating to the “tack free” stage before top coating.**

### EQUIPMENT CLEANUP

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Use clean PT-1003 Type II, PT-1002 or Acetone. Do not allow material to dry or cure inside any equipment.

### HEALTH, SAFETY, & STORAGE REQUIREMENTS

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Refer to each individual material SDS (Safety Data Sheet) for specific requirements on the health, safety, storage and handling requirements. Follow all local, state, and national regulations during surface preparation, material application and cleanup.

### PRODUCT INFORMATION & DISCLAIMER

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Product Data Sheets are periodically updated to reflect new information. It is important to use the latest and most recent revision for the product being used. The foregoing information is accurate to the best of our knowledge. However, due to differences in customer handling, use and method of application which are not known and are beyond our control, Products Techniques, Inc. makes no warranties as to the end result.