



PRODUCT DATA SHEET – PTI EPOXY PRIMER SERIES

PT-500KIC2 EPOXY PRIMER

DESCRIPTION

PT-500K Epoxy Primer is a low VOC epoxy polyamide solvent primer which conforms to and exceeds **MIL-PRF-23377 Rev. F, G, H, J & K TY. I, CL. 2**. This product is on the **Navy QPD (QUALIFIED PRODUCTS DATABASE)** as **PT-500 GIC**. **PT-500KIC2** is highly recommended for use on aluminum and other metallic surfaces to insure maximum protection against corrosion. **PT-500K Epoxy Primer** also insures maximum adhesion of **PTI TUF/FILM** coating, polyurethane, epoxy, enamel, lacquer or any finish coats. This Primer is intended to be used for aircraft, marine, original equipment manufacturing and all other industrial applications.

INDUSTRY USES

- Aerospace/Aviation – aircraft (commercial & military), helicopters, radar equipment and ground equipment
- Industrial – Material handling equipment, pumps, pipes, valves and fan equipment
- Marine – Ship structures, holding tanks, decks, hull primer and machinery
- Recreation – Playground equipment, golf carts, decks, etc.

SPECIFICATIONS

- **MIL-PRF-23377 REV. F, G, H, J, K TY I & TYII, CL.C, CL.C2 & CL. N**
- **HONEYWELL MCS9053N TY.I; CL. 1; GR. 1**
- **BMS 10-11Y TY. I GRADE E**

COLORS – YELLOW, GREEN, DARK GREEN AND LIGHT GREEN PER BAC 452

COATING PROPERTIES & CHARACTERISTICS

Mix Ratio, by volume	3 parts Paint (Comp A) to 1 part Catalyst (Comp B)
Toxicity	No ODC's (Ozone Depleting Chemicals)
Recommended Dry Film Thickness	0.6 – 0.9 mil
Solids	75% by weight
Grind	Grind = 6+N.S.
Admixed Viscosity	17 seconds, max #4 Ford
Admixed Weight per Gallon	10.5 lbs.
Flexibility	GE-impact 20% elongation
Theoretical Coverage	800 sq. ft. ² /gal.
Pot Life	8 – 12 hours
Coatings VOC	Below 340 g/L
Salt Spray ASTM B117	2000+ Hours
Humidity (Filiform)	2000+ Hours
Reducers/Thinners	PT-1003 TYII

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-Dichloropentane)	PASSES

SHELF LIFE

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

SURFACE PREPARATION INSTRUCTIONS

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

Shake component A and B in a paint shaker for 5 – 10 minutes for optimal results.
Admix by volume:

1. Add 3 parts by volume of Component "A" to 1 part by volume of Component "B" and stir thoroughly. Reduce with **MIL-T-81772B TY. II** at a 10% addition of the admixed primer.
2. Mix only an amount that can be used in 4 to 8 hour time period.

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

Reduce: Use reducer **PTI-1003 TY II (MIL-T-81772B TY. II)**.

- 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.



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APPLICATION

This product can be applied using a brush, roller, conventional air spray equipment or HVLP. 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, 15-35psi
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 coat 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.

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

Dry times are based on the dry film thickness between 0.6 - 0.9 mils (15-23 microns).

Air Dry:

Allow applied coating to dry for at least 5 hours before apply a top coat. This primer may be left uncoated for up to 3 days without have to scuff or sand. After 4 days a simple sanding or scuff followed by a solvent wipe will be sufficient before applying the topcoat.

- Tack free within 5 hours
- Dry hard within 8 hours
- A full chemical cure can take up to 7 days depending on conditions. The Specifications calls for a 14 days at ambient temperatures

Force Cure:

If force curing with heat is possible then air dry for 15 minutes followed by 1 hour at 150°F - 200°F. This dry time is only intended for testing. Let the coated material cool to room temperature before applying a topcoat.

EQUIPMENT CLEANUP

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



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HEALTH, SAFETY, & STORAGE REQUIREMENTS

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.



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PRODUCT INFORMATION & DISCLAIMER

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.