





**PTI Paints  
At  
Aircraft Spruce  
&  
Specialty**

**RV Paint Kit**





## Congratulations You Have Purchased

- **PTI's RV-8 Paint Kit System – everything you need to paint your RV-8 is included :**
  - **Acid Etch Primer (1 gallon kit-PTIYACID) – 2 component system - includes 2 gallons PTI-1045 reducer.**
  - **Epoxy Primer (1 gallon kit-PTIYEP) – 2 component system - includes 1 gallons PTI-1003TYII reducer.**
  - **Polyurethane (2 x 2 gallon kits PTI –PU) – 2 component system – with 1 gallon PTI-1003TYI reducer.**
  
- **The following products may be purchased separately (if desired):**
  - **Polyurethane – Clear (1 gallon kit PTI-PU Clear) and its reducer PTI-1003 TYI**
  - **Polykick™**



# Before You Begin to Paint:

**1. Prepare the Substrate** – Over 90% of coating adhesion problems are due to poor surface preparation. All contaminants – oils, silicones, greases, lubricants and oxidation must be removed from surface before primer application. Sand to remove any oxidation. Insure surface cleanliness by wiping with Isopropyl Alcohol or other PTI solvent. Failure to properly prepare the surface will affect the look, adhesion and longevity of the coating.

**2. Assemble Equipment** – Air Compressor with dryers, HPLV Spray Gun. It is critical to the success of your paint process to insure that the air coming out of the compressor is dry. Your spray gun and the lines from your compressor to your gun should be cleaned with solvent before spraying (this is true even when the gun is new and has never been used). Contamination in the lines will cause the paint to “orange peel” (the paint will appear pitted like the peel of an orange).

**3. Personal Protection Equipment (PPE)** – See the following charts and lists for appropriate safety equipment. Paint contains chemicals that are considered “hazardous.” To avoid injury and unnecessary exposure to such chemicals approved safety equipment should be worn during every phase of the paint process. The following chart should help you assess the kinds of risks that require protection.



Hazard Type	Hazard Type	Common related tasks
<u>Impact</u>	Flying objects such as large chips, fragments, particles, sand, and dirt.	Chipping, grinding, machining, masonry work, wood working, sawing, drilling, riveting, sanding, etc.
<u>Chemicals</u>	Splash, fumes, vapors, and irritating mists.	Acid and chemical handling, degreasing, plating, and working with blood.
<u>Dust</u>	Harmful dust.	Woodworking, buffing, and general dusty conditions.



## Protect Yourself and Others from Workplace Hazards

- **PPE Devices alone** should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.
- **Safety Goggles** – Goggles fit the face immediately surrounding the eyes and form a protective seal around the eyes. This prevents objects from entering under or around the goggles. Goggles guard against dust, impact and chemical risks.
- **Air-purifying Respirators** – have filters, cartridges, or canisters that remove contaminants from the air by passing the ambient air through the air-purifying element before it reaches the user. (User should consult Health and Safety Professionals to determine which respirator is best for their application)
- **Other Protective Gear**

## Other Protective Gear



Paint Suit



Protective Sleeve



Latex



Spray Sock



Atlas



Nitrile



Boots

## Proper Storage of PTI Products

- Most PTI products are Thermo-sensitive; paint containers must be properly stored between 60°F and 90°F.
- Most PTI products are very sensitive to humidity, previously opened cans must be carefully inspected and the lid properly placed in the fully closed position before returning to storage. Improper seal procedure and/or storage may cause an accelerated reduction of shelf life.
- Most PTI products are Non-Photochemical reactive. Light intensity will not affect product shelf life.





## Applying the Acid Etch Primer

**REFER TO THE TECHNICAL DATA SHEET FOR THIS PRODUCT**

- ❖ The acid etch primer performs two essential functions:
  1. Protection against corrosion
  2. Promotes Adhesion of the other coatings to the substrate.
  
- ❖ The acid etch primer can only perform its two essential functions if it is applied in a light, thin coat. The coating should be “translucent” (see the picture at the top right). **DO NOT TRY TO “HIDE” THE SUBSTRATE WITH THE PRIMER** (the black line was made prior to applying the primer).
  
- ❖ If the primer is applied too heavily it will crack, and turn brown. It may also peel off in sheets or chunks. You will not get proper adhesion (see the picture at the bottom right).

**NOTE:** When the primer is admixed it should be a yellow color. The mixed, unused, solution will darken in color over time. The change in color does not affect the coating’s performance. Spray only a light thin coat.





## Applying the Epoxy Primer

**REFER TO THE TECHNICAL DATA SHEET FOR THIS PRODUCT**

- ❖ PTI High Strontium Low VOC Epoxy Primer. 2 Components – meets MIL-PRF-23377 Revision E and some customer specifications, e.g., Boeing, Douglas & Embraer Air)
- ❖ The epoxy primer settles “hard.” Before mixing the paint (component A) with the catalyst (component B), shake component A for five minutes on a paint shaker .
- ❖ We highly recommend that the admixed paint be strained through a paint strainer cone before it is applied.





## Applying the Polyurethane System

conventional (Low VOC) Polyurethane System

**REFER TO THE TECHNICAL DATA SHEET FOR THIS PRODUCT**

- ❖ **PTI's Polyurethane** (MIL-PRF-85285D TY I and numerous customer specifications), is a unique formulation of high molecular urethane resins which produce an extremely hard – impervious film which does not yellow or chalk. It will retain its gloss even when exposed to most solvents, chemicals, fumes and sunlight.
- ❖ Before mixing the paint (component A) with the catalyst (component B), shake component A for five minutes on a mechanical paint shaker.
- ❖ We highly recommend that the admixed paint be strained through a paint strainer cone before it is applied.



## A Primer on Primers & Topcoats

Primer	Where to Use	What to Use it With
<b>Acid Etch or Wash Primer</b>	Exterior protection – still the best corrosion protection for metal substrates.	Use before applying Epoxy Primer and Polyurethane – polyurethane may be applied directly over acid etch primer.
<b>Epoxy Primer</b>	Interior or Exterior	Polyurethane topcoat. Highly recommend to extend paint life and maximize protection.
<b>Zinc Chromate &amp; Zinc Oxide</b> (Chromate Free)	Primarily used on interior parts.	Enamels and Lacquers. <b>Do not use with Polyurethane – no adhesion will occur.</b>



<b>Coating System</b>	<b>Solvent/Reducer</b>
Zinc Chromate & Zinc Oxide Primers	1022X66
Epoxy Primer	PT-1003 TY 2
Acid Etch Primer	PT-1045
Enamel	Toluene
Polyurethanes	PT-1003 TY1



## WHY BUY PTI?

- No extra charge for protection against harsh chemicals like skydrol, fuel and cleaning solvents (including MEK)
- No extra charge for UV protection
- Custom color matching
- Quantity is no object – we do small quantities
- Technical Support when needed



## WHY BUY PTI?

- Beauty – High gloss mirror image finish
- Protection – all PTI coating systems meet demanding federal specifications for protection in extreme environments and for chemical resistance, e.g., skydrol, fuel and cleaning solvents including MEK
- Performance – ease in application and longevity of life\*

\*Longevity of life depends upon number of flights, weather conditions and whether the plane is parked in a hangar or on the tarmac.