





**PTI Paints  
At  
Aircraft Spruce  
&  
Specialty**

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## Who we are...

- **Developing formulations since 1947.**
- **Our strength is in our formulations. Product development has always been our main priority.**
- **Our products are listed in over 50 major customer specifications and comply with or exceed numerous US Military, FAA, BMS, and Federal specifications.**
- **U.S. manufacturing facility in California.**



## Objectives...

- Give an understanding of PTI coating products and systems.
- Preparing the substrate and recommended paint system.
- Detail the safety equipment to be used with PTI coatings.
- Discuss techniques for maintaining PTI finished product.

## Substrate preparation

## ALUMINUM

- Remove old paint with the PTI paint stripper that suits your application.
- Apply thin film of stripper with brush or roller. Allow to dwell until coating is loose.
- Reapply if necessary.
- Wipe or scrape excess stripper and rinse with water. Power sprayer may be used.
- Sand to remove any oxidation remaining.
- Insure surface cleanliness by wiping with IPA or other solvent.
- Use PTI acid etch primer (wash primer) according to Tech Data.
- Ready for PTI epoxy primer application.



## Substrate preparation

- Grind entire surface to remove all contaminants
- Use air compressor to blow off any loose particles
- Approved pretreatment product may be used to increase protection.
- Surface is ready for primer application.

## STEEL



## Substrate preparation

- All composite material should be prepared per OEM Specifications.

## COMPOSITE



## Substrate preparation...

- Remove old paint with PTI strippers.
- Apply thin film of stripper with brush or roller. Allow to dwell until coating is loose.
- Reapply if necessary.
- Wipe or scrape excess stripper and rinse with water. Power sprayer may be used.
- Sand to remove any remaining oxidation.
- Insure surface cleanliness by wiping with IPA or other solvent.
- Ready for PTI epoxy primer application. (DO NOT USE ACID ETCH PRIMER)
- Magnesium is highly corrosive. Apply primers as soon as possible after cleaning.

## MAGNESIUM





## Things to keep in mind about surface preparation

- Over 90% of coating adhesion problems are due to poor surface preparation.
- All oils, silicones, greases, lubricants, etc... must be removed from surface before primer application.



# **Personal Protection Equipment (PPE) to be used with PTI Products**



## Eye and Face Protection

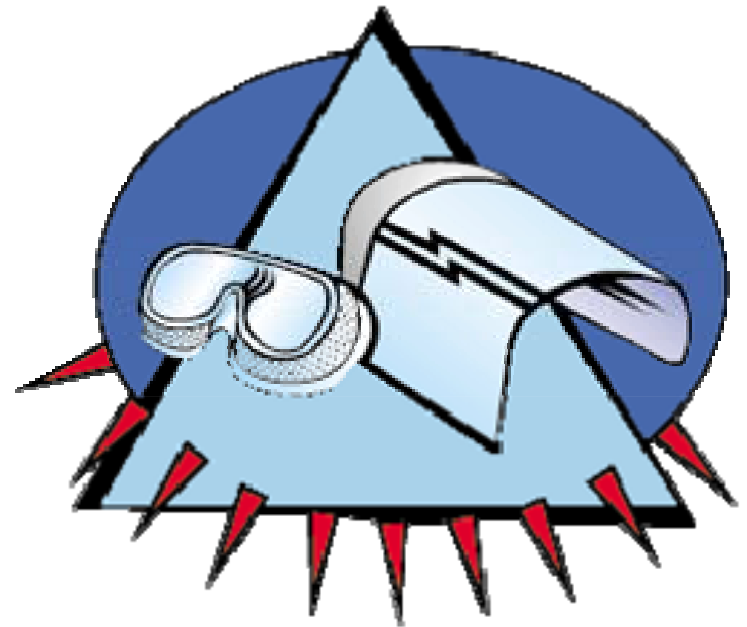


Thousands of people are blinded each year from work-related eye injuries. According to the Bureau of Labor Statistics (BLS), nearly three out of five workers are injured while failing to wear eye and face protection.

## Protecting Yourself or Employees 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.

(1910 Subpart I Appendix B)





## Hazard Assessment

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.

## SAFETY GOGGLES

- PPE against:
  - Dust
  - Impact
  - Chemical

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.



# RESPIRATORS

## **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



Paint Suit



Protective Sleeve



Latex



Spray Sock



Atlas



Nitrile



Boots

## High Solid Polyurethane System Application

- PTI Wash / acid etch primer
- PTI High solid epoxy primer or PTI Low VOC epoxy primer
- PTI High solid polyurethane top coat





## Conventional (Low VOC) Polyurethane System

- PTI's polyurethane is a unique formulation of high molecular urethane resins which produce an extremely hard impervious film which does not yellow or chalk and retains gloss even when exposed to most solvents, chemicals, fumes and sunlight. It can be applied to most any surface capable of being coated.





## High Solid Aliphatic Polyurethane System

- PTI's polyurethane is a new age high solid polyurethane system with an average of 79% solid material per admixed gallon. It contains no substance of known toxicity under normal conditions of use. When mixed properly, PTI's polyurethane covers 20% more than most other high solid urethanes on the market. It also has a gloss range of 90 degrees or higher – among the highest in the industry.





## Military or Aerospace Specification

- **PTI's** High Solid Aliphatic Polyurethane Top Coat
- 2 Component – meets these specs:
- MIL-PRF-85285, Rev. D Type I, and certain customer specifications – Boeing, Douglas & Embraer Air



## High Solid Epoxy System

- PTI's two component catalyst cure high solid epoxy polyamide primer cures to an extremely hard, impervious film which resists yellowing and chalking. This primer has some of the same resistance properties as urethanes with much higher adhesion characteristics. It provides ultimate protection and gives a high quality finished appearance to metal, wood, and most other materials capable of being coated.



## Military or Aerospace Specification

- **PTI High Strontium High Solids Epoxy Primer**
- (2 Components)
- Meets MIL-PRF-23377 (latest revision)
- U.S Navy QPL)
- Meets some customer specifications – Boeing, Douglas & Embraer Air
  
- **PTI High Strontium Low VOC Epoxy Primer** (uses exempt solvents)
- (2 Components)
- Meets MIL-P-23377 Revision E



## 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 lid properly placed in fully closed position before returning to storage place. 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.





## Conventional (Low VOC) Polyurethane System Application

- PTI acid etch primer
- PTI Conventional epoxy primer
- PTI Conventional polyurethane top coat

