

PRODUCT DATA SHEET

CC-750-4 POLYURETHANE

PTI POLYURETHANE SERIES

DESCRIPTION

CC-750-4 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. CC-750-4 can be applied to most any surface capable of being coated. Typical uses include:

- Aerospace/Aviation:** Aircraft and aircraft parts (commercial and military), material handling equipment, electronic cabinets, electronic circuit boards.
- Chemical Industry:** Pipes, valves, pumps, tanks, fertilizer tanks.
- Industrial:** Use for maintenance on floors, walls, equipment, clean rooms plating tanks and other applications.
- Marine:** Decks, holds, tanks, machinery buoys.
- Recreation:** All recreation and playground equipment.

COLORS

This coating can be provided in **any color & gloss range** as designated by the Federal Standard 595C. Custom colors are also available.

COATING PROPERTIES & CHARACTERISTICS

| | |
|---|---|
| Mix Ratio, by volume | 1 part Base to 1 part Catalyst |
| Reducer | PT-1003 Type I & PT-1004 |
| Recommended Dry Film Thickness | 1 mil |
| Pencil Hardness | 4h to 8h |
| Flexibility – 1/8 th Mandrel 0.125al | No Cracking or Flaking |
| Impact – 1lb. Ball Dropped 6ft | No Cracking or Chipping |
| Taber Abrasion | 1000 cycles/mil, CS-17 wheel |
| Temperature Range | -65°F to 450°F |
| Theoretical Coverage | 800 sq. ft. ² /gal. |
| Pot Life | 8 hours |
| Specifications | MIL-C-83286B TYI & II, MIL-C-81773C, LAC37-1340B & BMS 10-60N TYI CL.A GR.A |

RESISTANCE PROPERTIES

| | | |
|--------------------------|-----------|---------------------------|
| ASTM Salt Spray | No effect | Salt water |
| Lactic Acid | No effect | Hydrochloric Acid 10% 50% |
| Oxalic Acid | No effect | Sulfuric Acid 10% |
| Stearic Acid | No effect | Nitric Acid 10% |
| Acetic Acid | No effect | Chromic Acid 10% |
| Ammonium Hydroxide (15%) | No effect | Sodium Hydroxide 15% |
| Aluminum Sulfate | No effect | Sodium Carbonate |

PRODUCT DATA SHEET

| | | |
|-----------------------|-----------|------------------|
| Calcium Chloride | No effect | Sodium Nitrate |
| Chlorinate Solvent | No effect | Jet Fuels |
| Aromatic Hydrocarbon | No effect | Benzene Reagents |
| Aliphatic Hydrocarbon | No effect | Heptane |
| Esters | No effect | Vegetable oils |
| Synthetic lubricants | No effect | Fatty Acids |
| Skydol #500 | No effect | Skydol 7000 |

Note: The chemical and solvent resistance immersion tests were tested on the 750 series with 2mil film over .3mil wash primer on bonderized steel.

SHELF LIFE

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

CLEANING

All parts must be chemically or mechanically cleaned, film free, by an industry recognized cleaning specification or method

USE OF PRIMER

No primer is required except for in instances where specifications call for a primer. In which case PTI recommends the following

- PT-500: Meets MIL-PRF-23377

MIXING INSTRUCTIONS

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

Admix by volume:

| | |
|---------------|------------------------|
| 1 Part | Component A (Base) |
| 1 Part | Component B (Catalyst) |

Add the Catalyst into the Base.

Admixed material should be allowed a 15-minute induction time for best application results.

Reduce: Use reducer PT-1004 or PT-1003 Type I no more than 10% by volume.

- 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

This product can be applied using brush, roller, conventional air spray equipment, 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 Pressure: 7-10psi. Conventional Spray Equipment 15-30%
4. Always air-blow and tack wipe the surfaces to be painted. Aircraft should be grounded to prevent static.

PRODUCT DATA SHEET

5. Best application results: apply 3 coats: 1 fog/tack coat & 2 full coats from 0.6 – 1 mil thickness.
6. Do not allow more than 48 hours to pass before applying the second coat.
7. Recommended Dry Film Thickness is 1-2 mils. Some colors may require thicker films to achieve hiding.
8. For wet sanding or buffing of coating, wait a minimum of 13 hours but not more than 26 hours.
NOTE: If paint is allowed to cure for more than 48 hours wet sanding and buffing is not possible.

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 1-2 mils (25-50 microns).

Air Dry Times (75°F / 25°C and 50% Relative Humidity)

- Air Dry Set to Touch 2 hours max
- Dry to Recoat 1 hour max
- Dry Hard 7 hours max
- Full Cure 7 days

Force Cure

- Dry Timer – to Handle 30 minutes at 250°F
- Dry to Recoat 30 minutes at 150°F
- Dry Time – Full Cure 5 hours at 150°F
- Dry Time – Full Cure 4.5 hours at 175°F
- Dry Time – Full Cure 4 hours at 200°F
- Dry Time – Full Cure 3.5 hours at 225°F
- Dry Time – Full Cure 3 hours at 250°F

EQUIPMENT CLEANUP

Use clean Acetone, IPA, PT-1004 or PT-1003 Type I. Do not allow material to dry or cure inside any equipment.

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.

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.