



CC-D14

POLANE 2.8T Plus Polyurethane Enamel

Black F63B75 White F63W72
 Bright Red F63R76 Yellow Oxide F63Y70
 Red Oxide F63R71 Dead Flat Black F63B79
 Catalyst V66V44

DESCRIPTION

POLANE® 2.8T Plus is a two component polyurethane coating meeting the 2.8 EPA regulations for solvent emissions and meeting the high performance properties required by the business machine, computer and electronic enclosures industry. Polane 2.8T Plus coatings may be applied as a low gloss, smooth or textured coatings on structural foam and injection molded plastics such as polyphenylene oxide, polycarbonate, ABS and polystyrene, SMC, wood and metal substrates.

Advantages:

- Meets EPA requirements of under 2.8 lb/gal VOC catalyzed and reduced at the gun. Reduced solvent emissions
- Does not contain 1,1,1-trichloroethane
- High volume solids and spreading rate
- Outstanding physical and chemical properties required by electronic cabinetry market
- Excellent hardness, adhesion and abrasion resistance
- May be applied with conventional spray equipment. Plural component equipment not required
- Air drying or force dry. The baked on finish without the baking
- A low energy cure system
- Free of lead and chromate hazards
- Full range of colors available through monochromatic intermix system
- Direct adhesion to many plastic surfaces. A primer or filler is not normally required.
- Compatible with VIC™ process for accelerated dry time.

CHARACTERISTICS

Gloss: Low
Volume Solids: 59-60 ± 2% catalyzed and reduced may vary by color
Viscosity:
 13-21 seconds #3 Zahn Cup
Recommended film thickness:
 Mils Wet 3.0 - 4.0
 Mils Dry 1.5 - 2.0
Spreading Rate (no application loss)
 @ 1 mil dft: 950 sq ft/gal
Drying (77°F, 50% RH):
 To Touch: 25-35 minutes
 To Handle: 1-3 hours
 To Recoat: no critical recoat
 To Pack: overnight
 Force Dry: 30-45 minutes at 140-180°F

Curing temperatures above 140°F may yield slightly lower gloss. Spatter or texture coat may be applied immediately after flash off of smooth coat.

Do not exceed the heat distortion temperature of the substrate.

Mixing Ratio:

- 4 parts Polane 2.8T Plus
- 1 part Catalyst, V66V44
- 0.25 part Reducer R7K84

Pot Life: 2 hours

Less reduction or higher temperatures will shorten pot life.

Flash Point: 85°F Pensky-Martens
 Closed Cup

Package Life: 2 years, unopened

Air Quality Data:

Photochemically reactive
 Volatile Organic Compounds (VOC) as packaged, maximum
 2.55 lb/gal, 306 g/L
 catalyzed and reduced as above:
 2.8 lb/gal, 335 g/L

An Air Quality Data Sheet is available from your local Sherwin-Williams facility.

SPECIFICATIONS

General: Substrate should be free of grease, oil, dirt, fingerprints, drawing compounds, any contamination, and surface passivation treatments to ensure optimum adhesion and coating performance properties. Consult Metal Preparation Brochure CC-T1 for additional details.

Aluminum: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.

Galvanized Steel: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520

Plastic: Mold release must be removed from the substrate. A filler or primer/barrier coat may be required. Due to the diverse nature of plastic substrates, a coating or coating system must be tested for acceptable adhesion to the substrate prior to use in production. Reground and recycled plastics along with various fire retardants, flowing agents, mold release agents, and foaming/blowing agents will affect coating adhesion. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.

Steel or Iron: Remove rust, mill scale, and oxidation products. For best results, treat the surface with a proprietary surface chemical treatment of zinc or iron phosphate to improve corrosion protection. Prime untreated steel with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.

Wood (interior only): Must be clean, dry, and finish sanded. Substrate should be free of grease, oil, dirt, fingerprints, and any contamination to ensure optimum adhesion and coating performance properties. Apply Polane 2.8 Plus Filler, D61H75 and sand.

Testing: Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.

APPLICATION

Typical Setups

Mixing Ratio:

- 4 parts □ Polane 2.8T Plus
- 1 part □ Catalyst, V88V44
- 0.25 part □ Reducer R7K84

Pot Life: □ 2 Hours

Polane Reducer #94 may be used for slightly faster flash off. For better flow, Polane Retarder Thinner, R7K216 may partially replace the other reducers.

Note: Maximum total reduction is 5% by volume to maintain 2.8 VOC maximum.

Smooth Coat: Apply using airless or conventional spray.

Conventional Spray:

Air Pressure 30-40 psi
 Fluid Pressure 8-12 psi
 Cap/Tip 797/FF (DeVibiss)
 Allow 15 minutes flash off before applying texture. The texture may be varied by balancing the atomizing and fluid pressures. Lower atomizing pressure gives a larger pattern, higher atomizing pressure reduces texture size.
 Dip, flo-coat and brushing are not recommended.

Cleanup:

Clean tools/equipment immediately after use with Polane Reducers. Follow manufacture's safety recommendations when using any solvent.

SPECIFICATIONS

Performance Tests

Bonderite 1000 steel panels, 1.8 mils dry, 30 min. at 140°F, 10 days air cure
 Salt Spray Test 100 hours
 1/8" rust creepage at scribe
 Humidity 100°F, 100% RH 100 hours
 Impact Resistance, Direct 80 in lb
 Impact Resistance, Reverse 40 in lb
 Pencil Hardness 2-3H
 Taber Abrasion, CS 17 wheel, 1000 g, 1000 cycles 100 mg
 Adhesion Excellent

Polane 2.8T Plus

SPECIFICATIONS

Product Limitations:

- Polane 2.8T Plus coating must be catalyzed at 4:1 ratio with V66V44 by volume. Do not vary catalyst ratio. The ratio has been established for optimum hardness, flexibility, gloss and chemical and solvent resistance.
- Polane Catalyst V66V44 is recommended for interior use only. Polane 2.8T Plus is not recommended for extended exterior exposure because of chalking and loss of gloss.
- Do not spray hot. Heat shortens pot life. Do not pump catalyzed material from drums into circulation system. Friction heat developed by pumps and circulation will shorten pot life.
- Protect Polane Coatings, Catalyst, and Reducer from moisture as water affects potlife and film properties. Store indoors. Keep containers closed at all times.
- Do not package Polane coated products in airtight plastic bags unless completely cured. Since Polane Coatings continue to cure for several weeks, the buildup of organic solvents and reaction by-products could cause improper cure and adhesion failure in use.
- Do not blend with any other polyurethane quality. No other catalysts, colorants, or reducers are recommended because foreign materials such as alcohols, glycols, and lacquer thinners affect film performance properties.
- If recoating after more than 7 days cure, sand lightly to ensure intercoat adhesion.

Chemical Resistance

After 1/2 hour spot test and one hour recovery
 Isopropanol Excellent
 10% NaOH Excellent
 Ethyl Acetate Excellent
 Ammonia Excellent
 Drano Excellent
 Ivory® Liquid Excellent
 Clorox Formula 409® Excellent
 MEK Excellent
 (50 rubs MEK no/slight burnishing)
 Toluene Excellent
 10% HCL Excellent
 1,1,1, Trichloroethane Excellent
 1 normal H2S04 Excellent
 5% Tide solution Excellent

Stain Resistance

After 1/2 hour spot test:
 Coffee Excellent
 Vaseline Excellent
 Coca-Cola Excellent
 Catsup Excellent
 Motoroil Excellent
 Gasoline Excellent
 Lipstick Excellent

CAUTIONS

Thoroughly review product label for safety and cautions prior to using this product. A Material Safety Data sheet is available from your local Sherwin-Williams facility. Please direct any questions or comments to your local Sherwin-Williams facility.

LABEL CAUTION

Contents are FLAMMABLE. Vapors may cause flash fires. Keep away from heat, sparks, and open flame. During use and until all vapors are gone: Keep area ventilated - Do not smoke - Extinguish all flames pilot lights, and heaters - Turn off stoves, electric tools and appliances, and any other sources of ignition. SEE CONTENTS STATEMENT ON LABEL. VAPOR HARMFUL. Use only with adequate ventilation. This product must be used with an appropriate catalyst. Follow the respirator requirement and instructions on the catalyst.
 Adequate ventilation required when sanding or abrading the dried film. If adequate ventilation cannot be provided wear an approved particulate respirator (NIOSH approved). Follow respirator manufacturer's directions for respirator use.
 Avoid contact with eyes and skin. Wash hands after using. Keep container closed when not in use. Do not transfer contents to other containers for storage. FIRST AID: If INHALED: If affected, remove from exposure. Restore breathing, Keep warm and quiet. If on SKIN: Wash affected area thoroughly with soap and water. Remove contaminated clothing. Launder before re-use. If in EYES: Flush eyes with large amounts of water for 15 minutes. Get medical attention. If SWALLOWED: Get medical attention immediately.
 SPILL AND WASTE: Remove all sources of ignition. Ventilate and remove with inert absorbent. Incinerate in approved facility. Do not incinerate closed container. Dispose of in accordance with Federal, State and Local regulation regarding pollution
 DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal.
 Abrading or sanding of the dry film may release crystalline silica which has been shown to cause lung damage and cancer under long term exposure. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
 WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.
 DO NOT TAKE INTERNALLY. KEEP OUT OF THE REACH OF CHILDREN. FOR INDUSTRIAL USE ONLY SEE MATERIAL SAFETY DATA SHEET. 3591-73100 Catalyst CONTAINS ISOCYANATES. People who have chronic (long-term) lung or breathing problems or have had a reaction to isocyanates, must not be in the area where this product is being applied. Where overspray is present, a positive pressure air-supplied respirator should be worn. If unavailable, a properly fitted organic vapor/particulate respirator may be effective. Consult catalyst MSDS and product label for complete handling instructions.
Note: product Data Sheets are periodically Updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in Customer handling and methods of application which are not known or under our control, The Sherwin-Williams company cannot make any warranties as to the end result.