



Chemical Coatings

CC-D14

POLANE® 2.8T Plus Polyurethane Enamel

Black F63B75
Blending White.....F63W76
Flat Blending Clear F63T8

Dead Flat Black F63B79
Blending Clear F63F77
Catalyst V66V44

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p>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 polycarbonate, ABS and polystyrene, SMC, wood and metal substrates.</p> <p>Advantages:</p> <ul style="list-style-type: none"> • 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 blending • Direct adhesion to many plastic surfaces (see specifications column) 	<p>Gloss: 5-15 Units @ 60° Dead Flat Black <5 Units @ 60°</p> <p>Volume Solids: 59-60 ± 2% catalyzed and reduced may vary by color</p> <p>Viscosity: 13-21 seconds#3 Zahn Cup catalyzed and reduced</p> <p>Recommended film thickness: Mils Wet 3.0 - 4.0 Mils Dry 1.5 - 2.0</p> <p>Spreading Rate (no application loss) 475-633 sq ft/gal @ 1.5-2.0 mil DFT</p> <p>Drying (77°F, 50% RH): To Touch: 25-35 minutes To Handle: 1-3 hours To Recoat: no critical recoat Force Dry: 30-45 minutes at 140-180°F</p> <p>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.</p> <p>Mixing Ratio: 4 parts Polane 2.8T Plus 1 part Catalyst, V66V44 0.25 part Reducer R7K95</p> <p>Pot Life: 2 hours Less reduction or higher temperatures will shorten pot life.</p> <p>Flash Point: 85°F Pensky-Martens Closed Cup</p> <p>Package Life: 2 years, unopened</p> <p>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</p> <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility.</p>	<p>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.</p> <p>Aluminum: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.</p> <p>Galvanized Steel: Prime with Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G520.</p> <p>Plastic: 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. A filler or primer/barrier coat may be required. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.</p> <p>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.</p> <p>Wood (interior only): Must be clean, dry, and finish sanded. Apply Polane 2.8 Plus Filler, D61H75 and sand.</p> <p>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.</p>

APPLICATION

Typical Setups

Reduction: Maximum total reduction is 5% by volume to maintain 2.8 VOC maximum. Polane K84 Reducer may be used for slightly faster flash off. For better flow, Polane Retarder Thinner, R7K216 may partially replace the other reducers. Polane Reducer R7K95 may be used as a HAPS free alternative. For better flow use HAPS free reducer R6K30, MAK.

Smooth Coat: Apply using airless or conventional spray.

Conventional Spray:

Air Pressure 30-40 psi
Fluid Pressure 8-12 psi
Cap/Tip 797/FF (DeVilbiss)

Texture Coat: 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 Reducer, R7K95 or MAK. Polane reducers, MEK and MIBK may also be used but are not HAPS compliant.

Follow manufacturer'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

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 ½ 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 H2SO4 Excellent
5% Tide solution Excellent

Stain Resistance

After ½ hour spot test:
Coffee Excellent
Vaseline Excellent
Coca-Cola Excellent
Catsup Excellent
Motor oil Excellent
Gasoline Excellent
Lipstick Excellent

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION

Thoroughly review product label and Material Safety Data Sheet (MSDS) 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.

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.