



**SHERWIN  
WILLIAMS.**

# Chemical Coatings

CC-D15

## POLANE® Plus Enamel

Black ..... F63B82  
 White ..... F63W81  
 Blending Clear ..... F63V83  
 Catalyst ..... V66V44

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p><b>POLANE® Plus Enamel</b> is a 3.5 VOC, two component, high gloss urethane coating providing physical and chemical properties as required for the machine tool industry and for product finishing of metal, plastic, and wood surfaces.</p> <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>Complies with EPA emission regulations of 3.5 lb/gal VOC</li> <li>High spreading rate due to higher solids</li> <li>Ideal coating for Machine Tool industry with resistance to most lubricants and cutting oils</li> <li>Excellent chemical and stain resistance</li> <li>Excellent hardness and adhesion</li> <li>Excellent mar and abrasion resistance</li> <li>Air dry or force dry curing</li> <li>Does not contain 1, 1, 1 trichloroethane</li> <li>Full gloss range. Lower glosses may be obtained by using Polane® T Plus Flattening Agent F63T7, or blending with Polane® T Plus</li> <li>Full range of colors may be blended</li> <li>Apply by conventional, airless or electrostatic spray</li> <li>The performance properties are ideal for metal surfaces as well as structural materials such as FRP, structural foams, ABS, SMC, Nylon and many other plastic and wood surfaces</li> <li>Free of lead and chromate hazards</li> </ul>	<p><b>Gloss:</b> Full (90+)</p> <p><b>Volume Solids:</b> 50-52 ± 2% catalyzed and reduced may vary by color</p> <p><b>Viscosity:</b> catalyzed and reduced 11-16 seconds #3 Zahn Cup</p> <p><b>Recommended film thickness:</b>  Mils Wet 3.0 - 4.0  Mils Dry 1.5 - 2.0</p> <p><b>Spreading Rate</b> (no application loss)  385-577 sq ft/gal @ 1.5-2.0 mils DFT</p> <p><b>Air Drying</b> (77°F, 50% RH):  To Touch: 20-30 minutes  Tack Free: 30-40 minutes  Hard: 8 hours  To Pack: overnight  Force Dry: 30 minutes at 140-180°F</p> <p>Curing temperature must not exceed the heat distortion temperature of the plastic substrate.</p> <p><b>Mixing Ratio:</b>  3 parts Polane® Plus  1 part Catalyst V66V44  1 part MAK, R6K30</p> <p><b>Pot Life:</b> 2-3 hours</p> <p><b>Accelerated Drying:</b> Add one ounce of Polane Accelerator, V66VB11 per uncatalyzed gallon of Polane Plus. Working potlife is reduced to 1-1½ hours.</p> <p><b>Flash Point:</b> 76°F Pinsky-Martens Closed Cup</p> <p><b>Package Life:</b> 2 year, unopened</p> <p><b>Air Quality Data:</b>  Non-photochemically reactive Volatile Organic Compounds (VOC) as packaged, maximum  2.7 lb/gal, 324 g/L  catalyzed and reduced as above:  3.5 lb/gal, 420 g/L</p> <p>An Environmental Data Sheet is available from your local Sherwin-Williams facility.</p>	<p><b>General:</b> 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><b>Aluminum:</b> Prime with Industrial Wash Primer, P60G2, or Kem Aqua® Wash Primer, E61G520.</p> <p><b>Galvanized Steel:</b> Prime with Industrial Wash Primer, P60G2, or Kem Aqua® Wash Primer, E61G520.</p> <p><b>Plastic:</b> 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><b>Steel:</b> 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.  For untreated metal, prime with Industrial Wash Primer, P60G2, followed by Polane® Plus Sealer, E65A71. For best corrosion resistance, prime with Catalyzed Epoxy Primer, E61RC22 or 2.8 VOC Catalyzed Epoxy Primer.</p> <p><b>Wood</b> (interior only): Must be clean, dry, and finish sanded. Fill with Polane® 2.8 Plus Filler, D61H75, and seal with Polane® Plus Sealer, E65A71.</p> <p><b>Cast Iron:</b> Fill with Polane® 2.8 Plus SprayFil, D61H75, and sand, then apply Polane® Plus Sealer, E65A71.</p> <p><b>Testing:</b> 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

**Note:** Maximum total reduction is 25% by volume to maintain 3.5 VOC.

#### **May be applied by:**

Conventional Spray  
Airless  
Electrostatic

#### **Conventional Spray:**

Gun ..... DeVilbiss MBC  
Air Pressure ..... 50 psi  
Fluid Pressure ..... 10 psi  
Cap/Tip ..... 797/E or FF

#### **Airless Spray:**

Pressure ..... 1800-2200 psi  
Tip ..... .011 - .017"

Dipping, brushing or flocoat application is not recommended.

#### **Cleanup:**

Clean tools/equipment immediately after use with MAK R6K30, or other ketone solvents.

Follow manufacturer's safety recommendations when using any solvent.

#### **Performance Tests**

Bonderite 1000 steel panels, 1.5 mils dft White, 30 minutes at 180°F, 14 days air cure  
Salt Spray Test ..... 100 hours  
Humidity 100°F, 100% RH ..... 100 hours  
Impact Resistance, Direct ..... 20 in lb  
Pencil Hardness ..... H-2H  
Taber Abrasion  
CS 17 wheel, 1000 g, 1000 cycles <100 mg  
Water Immersion ..... 24 hours  
Adhesion, crosshatch ..... Excellent  
MEK, 50 double rubs ..... slight gloss loss

## **SPECIFICATIONS**

#### **Product Limitations:**

- Polane® Plus coatings must be catalyzed. Do not vary catalyst ratio. The catalyst ratio has been established for optimum hardness, flexibility, gloss, chemical and solvent resistance. Slight over or under catalyzation will not seriously affect performance.
- Polane® Catalyst V66V44 is recommended for interior use only. This product is not intended for exterior exposure application because of limited color and gloss retention properties.
- Do not blend with any polyurethane other than Polane® T Plus. No other catalysts or reducers are recommended because foreign materials such as alcohols and glycols destroy performance properties. Lacquer thinners and alcohol containing solvent blends should not be used with Polane® enamels.
- Polane® coatings are not recommended for exterior use on wood.
- Do not spray hot, heat shortens pot life. Do not pump catalyzed material from drums into circulating systems. Friction heat developed by pumps and circulation will shorten potlife.
- Protect Polane® Enamels, Catalyst and Reducer from moisture as water affects pot life and properties. Store indoors.
- Do not package Polane® coated products in airtight plastic bags unless completely cured. Since Polane® Enamels continue to cure for several weeks, the buildup of organic solvents and reaction by-product could cause improper cure and adhesion failure in use.

**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.

## **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.