



**SHERWIN  
WILLIAMS.**

# Chemical Coatings

CC-D4

## POLANE® B Polyurethane Enamel

Flattening Base .....	F63T1	ASA 61 Gray .....	F63A31
Strobe White .....	F63W13	Static Black .....	F63B13
Bright Yellow .....	F63Y9	Thermal Red .....	F63R12
Clear .....	F63V14	Ultrasonic Chrome .....	F63S1
Catalyst (interior) .....	V66V27	Catalyst (exterior) .....	V66V29

<u>DESCRIPTION</u>	<u>CHARACTERISTICS</u>	<u>SPECIFICATIONS</u>
<p><b>POLANE® B Polyurethane Enamel</b> is a full gloss, two package coating for use where high performance is required. This is ideal for metal, structural materials such as FRP, structural foams, ABS Plastic, SMC, nylon, and many other plastics, and wood.</p> <p><b>Advantages:</b></p> <ul style="list-style-type: none"> <li>• Excellent physical and chemical performance</li> <li>• Excellent appearance over metal, wood, and plastics, whether smooth and impermeable or rough and porous, using a complete recommended system</li> <li>• Ideal for the machine tool industry, with resistance to most lubricants and cutting oils</li> <li>• Ideal coating for heat sensitive substrates because of low temperature curing</li> <li>• Air dry or force dry</li> <li>• Available in a broad range of colors</li> <li>• Excellent hardness and impact resistance</li> <li>• Excellent adhesion and mar and abrasion resistance</li> <li>• Excellent chemical and water resistance</li> <li>• Free of lead hazards as packaged in compliance with Consumer Product Safety Commission's (CPSC) 16 CFR Chapter II: Subchapter B, part 1303.</li> </ul>	<p><b>Gloss @ 1.0 mil DFT:</b> Full 85+, except F63S1 which is 30-35</p> <p><b>Volume Solids:</b> 22.0 - 28.5 ± 1% catalyzed &amp; reduced varies by color</p> <p><b>Viscosity:</b> (as packaged) 17-35 seconds #3 Zahn Cup 35-75 seconds #4 Ford Cup</p> <p><b>Recommended film thickness:</b> Mils Wet 4.0 - 5.0 Mils Dry 1.0 - 1.25</p> <p><b>Spreading Rate</b> (no application loss) @ 1.0-1.25 mil dft: 280-460 sq ft/gal</p> <p><b>Drying</b> (77°F, 50% RH): To Touch: 20 minutes To Handle: 60 minutes To Recoat: no critical recoat To Pack: overnight Force Dry: 30 minutes at 140-180°F</p> <p>Do not exceed the heat distortion temperature of the substrate</p> <p><b>Flash Point:</b> 41-56°F Pensky-Martens Closed Cup</p> <p><b>Mixing Ratio:</b> 6 parts Polane B 1 part Catalyst 25-33% Reducer R7K84</p> <p><b>Pot Life:</b> 6-8 hours</p> <p><b>Package Life:</b> 3 years, unopened</p> <p><b>Air Quality Data:</b> (Theoretical) Non-photochemically reactive Volatile Organic Compounds (VOC) Polane B, as packaged, maximum 5.6 lb/gal, 671 g/L V66V27, as packaged, maximum 3.8 lb/gal, 485 g/L catalyzed and reduced as above 5.82 lb/gal, 697 g/L</p> <p>An Environmental 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.</p> <p><b>Galvanized Iron:</b> Prime with Industrial Wash Primer, P60G2.</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. Please consult your Sherwin-Williams Chemical Coatings Sales Representative for system recommendations.</p> <p><b>Steel or Iron:</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. On untreated metal, prime with Industrial Wash Primer, P60G2, for smoother finish follow with Polane Primer-Sealer, E65A4. For best corrosion resistance on untreated metal, prime with Catalyzed Epoxy Primer, E61RC22. On treated metal, prime with Polane Primer-Sealer, E65A4</p> <p><b>Wood</b> (interior only): Must be clean, dry, and finish sanded. Seal with a coat of Polane SprayFil and sand.</p> <p><b>Cast Iron:</b> Fill with Polane SprayFil, sand, and seal with Polane Primer-Sealer.</p> <p><b>Testing:</b> Due to the wide variety of substrates, surface preparation methods, and application methods and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.</p>

## **APPLICATION**

Polane Reducer R7K69 is photochemically reactive, R7K84 is non-photochemically reactive.  
Retarder, R7K216, may be used for better flow.

### **Conventional Spray pressure feed:**

Air Pressure .....45-50 psi  
Fluid Pressure ..... 8-10 psi  
Tip .....050-.070

Do not apply by dipping, brushing, or flo-coating.

### **Cleanup:**

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

### **Performance Tests**

Substrate: Bonderite 1000 steel panels, 1.0 mils dry, 30 min. at 180°F, 14 days air cure, using V66V27  
Salt Spray Test ..... 250 hours  
Humidity 100°F, 100% RH ..... 200 hours  
Conical Mandrel ..... passes 1/8" mandrel  
Impact Resistance, Direct ..... 100 in lb  
Impact Resistance, Reverse ..... 80 in lb  
Pencil Hardness ..... H to 2H  
Taber Abrasion  
CS 17 wheel, 1000 g, 1000 cycles <100 mg  
Water Immersion ..... 100 hours  
Lacquer thinner, acetone, MEK, gasoline, xylene-20 double rubs .....

### **Chemical Resistance**

Lubricating & Cutting Oils ..... Excellent  
Hydraulic Fluids ..... Excellent

## **SPECIFICATIONS**

### **Product Limitations:**

- Polane Catalyst, V66V27, interior or V66V29, exterior, must be used to achieve proper performance. Do not vary catalyst ratio which has been established to provide optimum hardness, flexibility, gloss, and chemical resistance.
- Use catalyst V66V27 for interior use. V66V27 will lead to early chalking and gloss loss on exterior exposures. Use V66V29 for exterior use. Polane B catalyzed with V66V29 is not intended for long term exterior exposures, extended exposure to strong sun will lead to chalking, gloss loss, and color fading.
- Heat shortens pot life. Do not spray hot. Do not pump catalyzed material into circulating systems. Friction heat developed by pumps and circulation will shorten pot life.
- Protect from moisture, water affects pot life and product properties. Store indoors.
- Do not package Polane coated products in air tight plastic bags unless completely cured. Polane continues 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 apply to wood for exterior use.
- Do not blend with any polyurethane quality except Polane B or T. No other catalyst, or reducers are recommended because foreign materials, such as alcohols and glycols, destroy performance properties. Do not use lacquer thinners or alcohol-containing solvents.
- Do not blend with any colorants other than Phoenix™ Colorants.
- Gloss levels may be adjusted by using F63T1, Polane Flattening Base.

## **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.