**Product Finishes**

**POLANE® T Polyurethane Enamel**

**DESCRIPTION**

**POLANE® T Polyurethane Enamel** is a two component, low gloss coating providing superior appearance and durability. Polane® T can be used as a smooth or textured finish. Its textured appearance camouflages imperfections left by production operations such as grinding marks, welding seams, and molding.

**Advantages:**
- Excellent appearance over many types of substrates—metal, plastics, and wood
- Air dry or force dry
- Excellent chemical and water resistance
- Excellent adhesion, mar, and abrasion resistance
- Excellent hardness and impact resistance
- Widely used for coating business machines and computers because of resistance to stains, chemicals and abrasion and for long-term durability
- Texturing minimizes surface irregularities and provides a three dimensional appearance
- Available in a broad range of colors
- Can be used on structural plastics that cannot tolerate high baking temperatures

**Air Quality Data** (theoretical):
- Non-photochemically reactive
- Volatile Organic Compounds (VOC) as packaged, maximum 5.60 lb/gal, 671 g/L
- Catalyzed and reduced as above, maximum, 5.82 lb/gal, 697 g/L

*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.

An Environmental Data Sheet is available from your local Sherwin-Williams facility or at www.paintdocs.com

**CHARACTERISTICS**

- **Gloss:** Low 20-25 units (60°)
- **Volume Solids:** 30-36 ± 2% catalyzed and reduced, varies by color
- **Viscosity:**
  - as packaged 50-80 Krebs Units (varies by color)
  - catalyzed & reduced 20-25 sec Zahn #2
- **Recommended film thickness:**
  - Milts Wet 3.0 - 4.0
  - Milts Dry 1.0 - 1.25
- **Spreading Rate** (no application loss)
  @ 1.0-1.25 mil dft: 384-576 sq ft/gal
- **Drying** (1.0 mils dft, 77°F, 50% RH):
  - catalyzed with V66V27
    - To Touch: 20 minutes
    - To Handle: 60 minutes
    - To Pack: Overnight
    - To Recoat: no critical recoat time
    - Force Dry: 30 minutes at 140-180°F
  - Do not exceed the heat distortion temperature of the substrate.
  - Spatter or texture coat can be applied immediately after flash off of smooth coat. After 7 days, scuff sand to ensure adhesion.
- **Mixing Ratio:**
  - 6 parts Polane® T
  - 1 part Catalyst V66V27 or V66V29
  - Reduce 33% for smooth coat. Reduce as needed for texture coat with Polane® Reducer R7K69 or R7K84.
- **Pot Life:** 6-8 hours
- **Flash Point:** 41-55°F Pensky-Martens Closed Cup
- **Package Life:** 3 years, unopened V66V27 12 months, unopened V66V29 24 months unopened

**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 (untreated):** Prime with Industrial Wash Primer, P60G2, or RoHS Compliant Wash Primer, P60G10.

**Galvanized Steel (untreated):** Prime with Industrial Wash Primer, P60G2, or RoHS Compliant Wash Primer, P60G10.

**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.

For untreated steel, prime with Industrial Wash Primer, P60G2, or RoHS Compliant Wash Primer, P60G10. For a smoother finish, follow with Polane® Primer/Sealer, E65A4. For the best corrosion protection, prime with 2.8 VOC Catalyzed Epoxy Primer, E61A280. For treated steel, to improve performance, prime with Polane® Primer/Sealer, E65A4.

**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 Sales Representative for system recommendations.

**Wood** (interior only): Must be clean, dry, and finish sanded. Seal with a full coat of Polane® SprayFil.
Testing: The information, data, and recommendations set forth in this Product Data Sheet are based upon test results believed to be reliable. However, due to the wide variety of substrates, substrate properties, surface preparation methods, equipment and tools, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

**APPLICATION**

Typical Setups

**Reduction:** Reduce 33% for smooth coat or as need for texture coat with Polane® Reducer R7K69 or R7K84. Polane® Reducer R7K69 is photochemically reactive, R7K84 is non-photochemically reactive. Retarder, R7K216, may be used for better flow.

**Texture:**

Allow 5-10 minutes flash off of the smooth coat before applying the texture coat. The texture may be varied by adjusting the atomizing and fluid pressures until the desired texture size is obtained. Lower atomizing pressures give a larger texture pattern. Higher atomizing pressure reduces the texture size.

**Conventional Spray pressure feed, smooth or textured coat:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pressure, smooth</td>
<td>45-55 psi</td>
</tr>
<tr>
<td>Air pressure, texture</td>
<td>10-30 psi</td>
</tr>
<tr>
<td>Fluid Pressure</td>
<td>8-10 psi</td>
</tr>
<tr>
<td>Tip</td>
<td>.055-.070</td>
</tr>
</tbody>
</table>

**Conventional Spray suction feed, smooth coat only:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Pressure</td>
<td>45-55 psi</td>
</tr>
<tr>
<td>Tip</td>
<td>.055-.070</td>
</tr>
</tbody>
</table>

**Cleanup:**

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

**Performance Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bondere® 1000 steel panels, 1.0 mils dry, 30 days air cure, using V66V27</td>
<td>Polane® Catalyst, V66V27, interior, or V66V29, exterior, must be used to achieve proper performance. <strong>Do not vary catalyst ratio</strong> which has been established to provide optimum hardness, flexibility, gloss, and chemical resistance.</td>
</tr>
<tr>
<td>Salt Spray Test</td>
<td>200 hours</td>
</tr>
<tr>
<td>1/8&quot; rust creep on scribe</td>
<td></td>
</tr>
<tr>
<td>Humidity, 100% RH, 100°F</td>
<td>200 hours</td>
</tr>
<tr>
<td>Conical Mandrel passes 1/8&quot; mandrel</td>
<td></td>
</tr>
<tr>
<td>Impact Resistance, Direct</td>
<td>100 lb</td>
</tr>
<tr>
<td>Impact Resistance, Reverse</td>
<td>80 lb</td>
</tr>
<tr>
<td>Pencil Hardness N to 2H Crosshatch Adhesion, ASTM D-3369, Method B</td>
<td>5B Taber Abrasion</td>
</tr>
<tr>
<td>CS 17 wheel, 1000 g, 1000 cycles ... 100 mg</td>
<td></td>
</tr>
<tr>
<td>Water Immersion</td>
<td>100 hours</td>
</tr>
<tr>
<td>Lacquer thinner, acetone, MEK, gasoline, xylene</td>
<td>20 double rubs</td>
</tr>
</tbody>
</table>

**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® T 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.
- For applications involving V66V29 catalyst, V66VB11 accelerator may be used to speed up the dry time. Up to 2 ounces of V66VB11 per gallon of the paint component side is recommended.
- Gloss will be slightly higher when catalyzed with Polane® Catalyst, V66V29.
- 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, colorants, 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 ONLY

Thoroughly review product label and Safety Data Sheet (SDS) for safety information and cautions prior to using this product.

To obtain the most current version of the Environmental Data Sheet (EDS), Product Data Sheet (PDS), or Safety Data Sheet (SDS) please visit your local Sherwin-Williams facility or www.paintdocs.com.

Please direct any questions or comments to your local Sherwin-Williams facility.

**FOR CONSUMER USE ONLY**

Note: All purchases of products from Sherwin-Williams are exclusively subject to Sherwin-Williams’ terms and conditions of sale which can be found at www.sherwin.com. Please review these terms and conditions prior to the purchase of the products.

Sherwin-Williams warrants the product to be free of manufacturing defect in accordance with Sherwin-Williams’ quality control procedures. Except for the preceding sentence, due to factors that are outside of Sherwin-Williams’ control, including substrate selection, and customer handling, preparation, and application, Sherwin-Williams cannot make any other warranties related to the product or the performance of the product. SHERWIN-WILLIAMS DISCLAIMS ALL WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Liability for products proven to be defectively manufactured will be limited solely to replacement of the defective product or the refund of the purchase price paid for the defective product, as determined by Sherwin-Williams. Under no circumstances shall Sherwin-Williams be liable for indirect, special, incidental or consequential damages, lost profits or punitive damages arising from any cause whatsoever.