Product Finishes

CC-D13A
POLANE® T Plus Polyurethane Enamel

Black……..F63B70
Blending White……..F63W78
Blending Clear F63F76
Custom Blend……F63VX
Catalyst……V66V47

DESCRIPTION

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

Advantages:

- Meets EPA requirements of under 3.5 lb/gal VOC* catalyzed and reduced at the gun.
- Four hour working potlife
- 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.
- A low energy cure system
- Available in a broad range of colors
- Direct adhesion to many plastic surfaces (see specifications column)

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

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

CHARACTERISTICS

Gloss: 15-20 units (60°)

Volume Solids: 52 ± 2%
catalyzed and reduced
may vary by color

Viscosity:
10-15 seconds #3 Zahn Cup
catalyzed and reduced

Recommended film thickness:

Mils Wet	3.0 - 4.0
Mils Dry	1.5 - 2.0

Spreading Rate (no application loss)
420-555 sq.ft./gal @ 1.5-2.0 mils DFT

Drying (1.5 mils dft, 77°F, 50% RH):

To Touch:	20-30 minutes
To Handle:	1-2 hours
To Recoat:	no critical recoat time
Force Dry:	30 minutes at 140°F

Temperatures above 140°F may yield slightly lower gloss.
Do not exceed the heat distortion temperature of the substrate.

Mixing Ratio:

4 parts	Polane® T Plus
1 part	Catalyst V66V47
1 part	Reducer R7K74

Pot Life: 4 hours

Flash Point: 35°F Pensky-Martens Closed Cup

Package Life: 2 years, unopened
V66V47 12 months, unopened

Air Quality Data (Theoretical)**:**

- Photochemically reactive
- Volatile Organic Compounds (VOC) as packaged, maximum, less exempt solvents 2.8 lb/gal, 336 g/L
- Catalyzed and reduced as above 3.5 lb/gal, 420 g/L

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, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522.
Galvanized Steel (untreated)**:** Prime with Industrial Wash Primer P60G2, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522.
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 Product Finishes 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. For untreated metal: Prime with Industrial Wash Primer, P60G2, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522, followed by Polane® Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
For best corrosion resistance, prime treated steel with Polane® Plus Sealer, E65A71 or 2.8 VOC Catalyzed Epoxy Primer, E61A280.
Wood (interior only)**:** Must be clean, dry, and finish sanded. Seal with Sher-Wood® Vinyl Sanding Sealer, T67F3, or 2.8 Polane® Plus SprayFil.
.

All trademarks are the property of their respective owners

continued on back

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

Reduction: Reduce with R7K74. Maximum total reduction is 20% by volume to maintain 3.5 lb/gal VOC. Using other Polane® reducers (MAK, R7K84, R7K94, R7K95) will change the VOC and may affect gloss. For better flow, R7K216 may partially replace reducer, but will change the VOC.

Smooth Coat: A smooth coat can be applied with airless, HVLP or conventional spray equipment. Texture coat requires conventional or HVLP spray equipment.

Texture Coat: A texture coat requires conventional or HVLP spray equipment. Allow 15 minutes flash off before texturing. 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:
Air Pressure…….45-55 psi
Fluid Pressure……. 8-12 psi
Tip 0.055

May be applied with electrostatic air spray equipment.

Cleanup:
Clean tools/equipment immediately after use with Reducer, R7K74, 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.

Performance Tests:
Substrate: Bonderite® 1000 steel panels, 1.8 mils dry, 30 min. at 140°F, 10 days air cure
Pencil Hardness ..... 2H to 3H
Adhesion ..... Excellent
Taber Abrasion
CS17 wheel, 1000 g, ...
1000 cycles.. .....<100 mg
Impact Resistance, Direct ..... 80 in lb
Impact Resistance, Reverse ..... 40 in lb
Humidity 100°F, 100% RH .....100 hours
Salt Spray Test ..... 100 hours
1/8" rust creepage at scribe

SPECIFICATIONS

Product Limitations:
- Polane® T Plus coating must be catalyzed at 4:1 ratio with V66V47 by volume. **Do not vary catalyst ratio**. The catalyst ratio has been established for optimum hardness, flexibility, gloss and chemical and solvent resistance.
- Polane® Catalyst V66V47 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 spray hot. Heat shortens pot life. Do not pump catalyzed material from drums into circulating 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.
- Blend with Phoenix® Colorants only.
- Gloss levels may be adjusted by using F63V68 in the Phoenix® system.

Chemical Resistance:
After 1/2 hour spot test and 1 hour recovery:
Isopropanol..... Excellent
10% NaOH ..... Excellent
Ethyl Acetate ..... Excellent
Ammonia ..... Excellent
Drano® ..... Excellent
Ivory® Liquid ..... Excellent
Clorox Formula 409® ..... Excellent
MEK..... Excellent
Toluene ..... Excellent
10% HCL ..... Excellent
1,1,1 - Trichloroethane ..... Excellent
1 normal H_2SO_4 ..... Excellent
5% Tide® Solution ..... Excellent

Staining Resistance:
Resistance to staining after 1/2 hour spot test
Coffee ..... Excellent
Vaseline® ..... Excellent
Coca Cola® ..... Excellent
Ketchup ..... Excellent
Motor Oil ..... Excellent
Gasoline ..... Excellent
Lipstick ..... Excellent
MEK Resistance — 50 single rubs should have slight to no burnish.

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.

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.