



General Industrial Coatings

CC-D14A

POLANE® 2.8T Plus Polyurethane Enamel

Black.....	F63B75	Blending Clear	F63F77	Catalyst.....	V66V47
Dead Flat Black	F63B79	Blending White	F63W76	Custom Blend Series	F63EX
				Antimicrobial Blend Series	F63EM

DESCRIPTION

Polane® 2.8T Plus Polyurethane Enamel 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 low gloss, smooth or textured coatings on structural foam and injection molded plastics such as polycarbonate, ABS and polystyrene, SMC, wood and metal substrates.

Advantages:

- Meets EPA requirements of under 2.8 lb/gal VOC* catalyzed and reduced at the gun. Reduced solvent emissions
- 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 dry or force dry.
- A low energy cure system
- Available in a broad range of colors
- Direct adhesion to many plastic surfaces (see Specifications section)
- Free of chromate hazards.

CHARACTERISTICS

60° Gloss:

Low Gloss	5-15
Dead Flat Black	< 5

Volume Solids (varies by color):

Polane 2.8T Plus – Part A	61-65 %
Catalyst – Part B	64 ± 2 %
Catalyzed & Reduced	60 ± 2 %

* 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.

Viscosity: 13-21 secs., #3 Zahn Cup (at 77° F, catalyzed & reduced)

Recommended Film Thickness:

Mils Wet	3.0-4.0
Mils Dry	1.5-2.0

Spreading Rate (no application loss): 480-640 ft.²/gal. at 1.5-2.0 mils DFT

Cure:

Air Dry or Force Dry	30-45 mins. at 140-180° F
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Substrate Disclaimer: Do not exceed the heat distortion temperature of the substrate. Curing of coating at temperatures higher than the heat distortion parameters of the substrate may cause substrate issues.

Drying:

(1.5-2.0 mils at 77° F, 50% RH)	
To Touch	25-35 minutes
To Handle	1-3 hours
To Recoat	No critical recoat time

- Curing temperatures above 140° F may yield slightly lower gloss.
- Spatter or texture coat may be applied after 15 mins. flash off time of smooth coat is complete.

Mixing Ratio (by volume):

Polane 2.8T Plus – Part A	4 Parts
Catalyst – Part B	1 Part
Reducer, R6K30	0.25 Part (5% vol.)

Potlife:

2 hours
Lower reduction or higher application temperature will shorten potlife.

Flash Point (Pensky Martens Closed Cup):

Polane 2.8T Plus – Part A	85° F
Catalyst – Part B	81° F
Catalyzed & Reduced	74-85° F

Air Quality Data:

Photochemically Reactive	
Volatile Organic Compounds	
VOC, as packaged, maximum, less exempt solvents	2.6 lb/gal, 306 g/L
VOC, catalyzed & reduced as above	2.8 lb/gal, 335 g/L

Recommended Storage: Inside, sealed container, 40-120° F, no freeze hazard. Protect from moisture.

Package Life (unopened):

Polane 2.8T Plus – Part A	24 months
V66V47 Catalyst – Part B	12 months

SPECIFICATIONS

General: All substrates should be free of mold release, oil, grease, dirt, fingerprints, drawing compounds, surface passivation treatments and any other contaminants to ensure optimum adhesion and coating performance. Consult Metal Preparation brochure CC-T1 for additional details.

Aluminum: If untreated, prime with Industrial Wash Primer, P60G2, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522.

Galvanized Steel: If 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 General Industrial 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. Prime untreated steel with RoHS Compliant Wash Primer, P60G10, Industrial Wash Primer, P60G2 or Kem Aqua Wash Primer, E61G522.

Wood (interior only): Must be clean, dry, and finish sanded. Apply Polane 2.8 Plus Filler, D61H75 and sand.

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 with R6K30 (MAK). Maximum total reduction is 5% (vol.) to maintain 2.8 lbs./gal. VOC. Using other Polane reducers (R7K74, R7K84, R7K95) will change the VOC and may affect viscosity and gloss. For better flow, R7K216 may partially replace reducer but will change the VOC.

Smooth Coat: Apply using airless spray or conventional spray equipment.

Texture Coat: Allow 15 minutes smooth coat flash off time before applying texture coat. 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 coating, flow coating and brushing are not recommended.

May be applied by: Conventional Spray
Airless Spray (smooth coat)

Conventional Spray:

Air Pressure	45-55 psi
Fluid Pressure	8-12 psi
Tip	0.055-0.070 in.

Equipment/application guidelines are only guidelines and individual application & process parameters will dictate exact requirements.

Cleanup: Clean tools/equipment immediately after use with R7K95 (Polane HAPS Free Reducer) or R6K30 (MAK). Polane reducers, R6K10 (MEK) and MIBK may also be used but are not HAPS compliant.

Follow manufacturer's safety recommendations when using any solvent.

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ADDITIONAL INFORMATION

- This product must be properly catalyzed before using. DO NOT VARY CATALYST RATIO.** The catalyst ratio has been established for optimum hardness, flexibility, gloss, and chemical & solvent resistance.
- Polane Catalyst V66V47 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 pot life 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® Color Express® or GIS colorants only. Maximum colorant tint load is shown in the table below:

	F63F77	F63W76
Phoenix	21 oz/gal	4 oz/gal
Color Express	21 oz/gal	4 oz/gal
GIS	21 oz/gal	4 oz/gal

- Gloss levels may be adjusted by using F63V68 in the Phoenix system.

	F63V68
Phoenix	21 oz/gal
Color Express	21 oz/gal
GIS	-

- 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.
- Drying time is dependent on film thickness and atmospheric conditions. Heavier film thickness causes slow drying.

Performance Tests*

Substrate:	24 gauge Bonderite® 1000 Cold rolled steel panels
Topcoat:	1.8 mils DFT
Cure:	30 mins. at 140° F
Post-cure:	10 days

Salt Spray Test (ASTM B117)	100 hours 1/8" creep
Humidity Resistance (100 F, 100% RH)	100 hours
Impact Resistance, Direct	80 in lb
Impact Resistance, Reverse	40 in lb
Pencil Hardness	2H-3H*
Taber Abrasion (CS 17 wheel, 1000 g)	
1000 cycles	100 mg
Adhesion	5B (Excellent)

*Performance test results may vary depending on dry film thickness, substrate tested and post-cure duration.

Stain Resistance (after 30 mins. spot test):

Catsup	Excellent
Coca-Cola®	Excellent
Coffee	Excellent
Gasoline	Excellent
Lipstick	Excellent
Motor oil	Excellent
Vaseline®	Excellent

Chemical Resistance (after 30 mins. spot test and 1 hr. recovery):

Ammonia	Excellent
Clorox Formula 409®	Excellent
Drano®	Excellent
Ethyl Acetate	Excellent
10% HCl	Excellent
1 N H ₂ SO ₄	Excellent
Isopropanol	Excellent
Ivory® Liquid	Excellent
MEK (spot test)	Excellent
MEK (50 double rubs)	Slight Burnishing
10% NaOH	Excellent
5% Tide® solution	Excellent
Toluene	Excellent
1,1,1-Trichloroethane	Excellent

CAUTIONS

FOR INDUSTRIAL SHOP APPLICATION ONLY

Thoroughly review the 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.

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