



General Industrial Coatings

CC-D15A

POLANE® Plus Enamel

Black.....	F63B82	Clear Tint Base.....	F63V83C
Blending Clear.....	F63V83	Catalyst.....	V66V47
White.....	F63W81	Custom Blend Series.....	F63PX
		Custom Tint Series.....	F63PN

DESCRIPTION

POLANE® Plus Enamel is a 3.5 lb/gal VOC*, two component, high gloss polyurethane coating providing physical and chemical properties as required by the machine tool industry and for product finishing of metal, plastic, and wood surfaces.

Advantages:

- High spreading rate due to higher solids content
- Ideal coating for the machine tool industry with resistance to most lubricants and cutting oils
- Excellent chemical and stain resistance
- Excellent hardness and adhesion
- Excellent mar and abrasion resistance
- Air dry or force dry curing
- Available in a broad range of colors and gloss ranges.
- Apply by conventional, airless or electrostatic spray
- 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*
- Formulated to meet 3.5 lbs./gal. VOC, less exempts.

* 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

(May Vary By Color)

60° Gloss:

Blending Bases	90+
F63V83C (Clear Tint Base)	90+

Volume Solids: 51 ± 2 %

Viscosity (at 77° F, #3 Zahn Cup): 11-16 secs. catalyzed & reduced

Recommended Film Thickness:

Mils Wet	2.9-3.9
Mils Dry	1.5-2.0

Spreading Rate (no application loss): 410-545 ft.²/gal. at 1.5-2.0 mils DFT

Cure:

Air Dry or	
Force Dry	30 mins. at 140-180° F

Substrate Disclaimer: Curing of coating at temperatures higher than the heat distortion parameters of the substrate may cause substrate issues.

Air Drying:	1.5-2.0 mils at 77° F, 50% RH
To Touch	20-30 minutes
Tack Free	30-40 minutes
Dry Hard	8 hours
To Pack	Overnight

Mixing Ratio (by volume):

Part A	3 Parts
V66V47	1 Part
Reducer (R6K30, MAK)	1 Part

Potlife: 2-3 hours

Accelerated Drying: Add 1 oz of Polane Accelerator, V66VB11, per uncatalyzed gallon of Polane Plus. Working potlife is reduced to 1-1.5 hours.

Flash Point (Pensky Martens Closed Cup):

Part A	76° F
V66V47	81° F

Air Quality Data:

Non-Photochemically Reactive	
Volatile Organic Compounds (VOC), Less Exempts	
(as packaged, maximum)	2.7 lb/gal, 324 g/L
(admixed, maximum)	3.5 lb/gal, 420 g/L

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

Package Life: 2 years, unopened

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 (untreated): Prime with Industrial Wash Primer, P60G2, RoHS Compliant Wash Primer, P60G10, or Kem Aqua® Wash Primer, E61G522.

Cast Iron: Fill with Polane 2.8 Plus SprayFil, D61H75, and sand, then apply Polane Plus Sealer, E65A71.

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 General Industrial Sales Representative for system recommendations.

Steel: 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 followed by Polane Plus Sealer, E65A71. For best corrosion resistance, prime with 2.8 VOC Catalyzed Epoxy Primer, E61A280.

Wood (interior only): Must be clean, dry, and finish sanded. Fill with Polane 2.8 Plus Filler, D61H75, and seal with Polane Plus Sealer, E65A71.

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 reduction is 25% by volume with to maintain ≤ 3.5 lbs/gal VOC.

May be applied by: Conventional Spray
Airless Spray
Electrostatic Spray

Conventional Spray:

Air Pressure 50-55 psi
Fluid Pressure 8-10 psi
Tip 0.055-0.070 in.

Airless Spray:

Fluid Pressure 1,800-2,200 psi
Tip 0.011-0.015 in.

Dipping, brushing or flow coat application is not recommended.

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

Cleanup: Clean tools/equipment immediately after use with R6K30 (MAK), or ketone solvents.

Follow manufacturer's safety recommendations when using any solvent.

Performance Tests

Substrate: Bonderite® 1000 Steel Panels
Topcoat: 1.5 mils DFT, F63W81 White
Cure: 30 mins at 180° F & 14 days post-cure

Salt Spray Test Pass 100 hours
Humidity (100 F, 100% RH) Pass 100 hours
Impact Resistance, Direct 20 in lbs
Pencil Hardness Pass H-2H*
*Pencil Hardness may vary depending on dry film thickness, substrate and tester.
Taber Abrasion < 100 mg (CS 17 wheel, 1000 g)

Water Immersion Pass 24 hours
Adhesion, crosshatch Excellent
MEK (50 double rubs) Slight Gloss Loss

ADDITIONAL INFORMATION

1. **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. Slight over or under catalyzation will not seriously affect performance.
2. 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.
3. 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.
4. Polane coatings are not recommended for exterior use on wood.
5. Do not spray hot, heat shortens pot life.
6. Do not pump catalyzed material from drums into circulating systems. Friction heat developed by pumps and circulation will shorten potlife.
7. Protect Polane enamels, catalyst and reducer from moisture as water affects pot life and properties. Store indoors.
8. 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.
9. Gloss levels may be adjusted by using Polane T Plus or Polane 2.8 T Plus in the Phoenix Colorants® system.
10. 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.
11. Drying time is dependent on film thickness and atmospheric conditions. Heavier film thickness causes slow drying.
12. Compatible with GIS, Opticolor® Express & Phoenix® colorants. **Do not exceed the maximum tint loads listed below:**

Base	Maximum Tint Load (Oz. Colorant/Gal. Base)
GIS, Opticolor XP & Phoenix Colorants	
Black, F63B82	4
Blending Clear, F63V83	24
White, F63W81	4
Clear Tint Base, F63V83C	24

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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.

Note:

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