General Industrial Coatings

CC-D4

POLANE® B Polyurethane Enamel

ASA-61-Gray	F63A31	Flatting Paste	F63T1	Catalyst (Interior)	V66V27
Static Black	F63B13	Strobe White	F63W13	Catalyst (Exterior)	V66V29
Clear	F63V14	Bright Yellow	F63Y9	Custom Blend Series	F63BX
Thermal Red	F63R12	Clear Tint Base	F63V14C	Custom Tint Series	F63BN
Ultrasonic Chrome	F63S1	Mid-Gloss Clear Tint Base	F63V116C		

DESCRIPTION

POLANE® B Polyurethane Enamel is a full gloss, two component 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.

Advantages:
- Very good physical and chemical performance
- Very good appearance over metal, wood, and plastics, whether smooth and impermeable or rough and porous, using a complete recommended system
- Very good hardness and impact resistance
- Very good adhesion and mar and abrasion resistance
- Very good chemical and water resistance
- Ideal for the machine tool industry, with resistance to most lubricants and cutting oils
- Ideal coating for heat sensitive substrates because of low temperature curing
- Air dry or force dry
- Available in a broad range of colors

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

60° High Gloss:

Blending Bases	85+
F63S1	30-35 units
F63V14C (Clear Tint Base)	90+
F63V116C (Mid-Gloss Tint Base)	55-65

Volume Solids: 22-29 ± 2 %
Catalyzed & reduced, varies by color

Viscosity (as packaged)**:**
17-35 secs., #3 Zahn Cup
35-75 secs., #4 Ford Cup

Recommended Film Thickness:

Mils Wet	4.0-5.0
Mils Dry	1.0-1.25

Spreading Rate (no application loss)**:**
280-460 ft.^{2}/gal. at 1.0-1.25 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

Drying (77° F, 50% RH):

To Touch	20 minutes
To Handle	60 minutes
To Recoat	No critical recoat time
To Pack	Overnight

Mixing Ratio (by volume)**:**

Polane B	6 Parts
Catalyst (V66V27 or V66V29)	1 Part
Reducer (R7K84)	25-33%

Potlife: 6-8 hours

Flash Point (Pensky Martens Closed Cup)**:**
41-75° F

Package Life: 3 years, unopened
V66V27, 12 months unopened
V66V29, 24 months unopened

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

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, 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.

Cast Iron: Fill with Polane SprayFil, sand, and seal with Polane Primer-Sealer.

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.

continued on back

Application

Typical Setups

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

Conventional Spray:

Air Pressure	45-50 psi
Fluid Pressure	8-10 psi
Tip	0.050-0.070 in.

Do not apply by dipping brushing or flow coating.

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

Cleanup: Clean tools and equipment immediately after use with Polane Reducer.

Follow manufacturer's safety recommendations when using any solvent.

Performance Tests*

Substrate:	Bonderite® 1000 panels
DFT:	1.0 mil
Cure:	30 mins at 180° F using V66V27
Post-Cure:	14 days

Salt Spray Test	250 hours
Humidity (100° F, 100% RH)	200 hours
Conical Mandrel, 1/8”	Pass
Impact Resistance, Direct	100 in lb
Impact Resistance, Indirect	80 in lb
Pencil Hardness	H to 2H
Taber Abrasion	<100 mgs
	CS17 wheel, 1,000 g, 1,000 cycles
Water Immersion	100 hours
Lacquer thinner, acetone, MEK, gasoline, Xylene	20 double rubs

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

Chemical Resistance

Lubricating & Cutting Oils	Excellent
Hydraulic Fluids	Excellent

ADDITIONAL INFORMATION

1. 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.
2. 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.
3. Gloss will be slightly higher when catalyzed with Polane Catalyst, V66V29.
4. 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.
5. Protect from moisture, water affects pot life and product properties. Store indoors.
6. Do not package Polane coated products in airtight plastic bags unless completely cured. Polane continues to cure for several weeks, the buildup of organic solvents and reaction byproducts could cause improper cure and adhesion failure in use.
7. Do not apply to wood for exterior use.
8. Do not blend with any polyurethane quality except Polane B or T. No other catalysts, or reducers are recommended because foreign materials, such as alcohols and glycols, destroy performance properties. Do not use lacquer thinners or alcohol-containing solvents.
9. Gloss levels may be adjusted by using F63T1 Polane Flatting Base. Maximum load is listed in the table below:

	F63T1
Opticolor Express	24 oz/gal
Phoenix	-
GIS	24 oz/gal

10. Do not blend with any colorants other than Opticolor Express®, Phoenix® or GIS colorants. Maximum colorant tint load is listed in the table below:

	F63F10	F63V14	F63W9 & F63W13
Opticolor Express	-	24 oz/gal	4 oz/gal
Phoenix	21 oz/gal	24 oz/gal	4 oz/gal
Color Express	-	4 oz/gal	-
GIS	-	24 oz/gal	4 oz/gal

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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