



**SHERWIN
WILLIAMS.**

General Industrial Coatings

CC-D31

Polane® 8890 Polyurethane Enamel

High Gloss Jet Black..... F63B104
High Gloss Clear..... F63C101
High Gloss White F63W100
High Gloss Blend Series F63ZX
Catalyst..... 53-X145A
Catalyst..... V66VC232

Low Gloss Black..... F63B105
Low Gloss Clear..... F63T103
Low Gloss White F63W102
Low Gloss Blend Series F63LG
Catalyst V66V280
Catalyst V66V55

High Gloss Clear Tint Base... F63C101C
Mid-Gloss Clear Tint Base F63T104C
Satin Gloss Clear Tint Base ... F63T105C
Custom Tint Series F63ZN
Antimicrobial Blend Series F63FM

DESCRIPTION

POLANE® 8890 Polyurethane Enamel is a two component, aliphatic, acrylic topcoat with fast dry and flexible application characteristics. The applied VOC can be tailored to a 2.8 or 3.5 lbs./gal. system by selecting different catalysts.

POLANE 8890 Antimicrobial Polyurethane Enamel Blends contain an anti-microbial additive which protects the coating surface from microbial growth. Normal cleaning and surface maintenance practices should always be followed.

Advantages:

- Available in a full gloss range
- Available in a broad range of colors
- Very good exterior durability
- Quick tack free time
- High abrasion resistance
- Chemically resistant
- Good performance over multiple substrates including steel, aluminum, ABS, PC-ABS, PVC and Polycarbonate
- Compatible with a wide range of primers including E61AC133, E61A280 & E61AC151
- Formulated to meet 2.8 & 3.5 lbs/gal*VOC less exemptions

CHARACTERISTICS

60° Gloss:

Blending Bases 10-90
F63C101C (High Gloss Clear Tint Base) 88+
F63T104C (Mid-Gloss Tint Base) 55-65
F63T105C (Satin Tint Base) 20-30

Volume Solids (varies by color and gloss):

As packaged 52-53 ± 2 %
Catalyzed and reduced 48-52 ± 2 %

Viscosity: 15-40 secs., #3 Zahn Cup
(catalyzed & reduced, varies by color and gloss)

Recommended Film Thickness:

Mils Wet 2.9-5.8
Mils Dry 1.5-3.0

*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.

Mixing Ratio (by volume):

3.5 VOC - V66V55 Catalyst		
High, Mid & Satin Gloss		
Polane 8890	5 parts	5 parts
V66V55 Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.25 part
R6K30 Reducer	0.6 part	0.6 part
Low Gloss		
Polane 8890	6 parts	6 parts
V66V55 Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.15 part
R6K30 Reducer	0.6 part	0.6 part
R6K38 Reducer	0.1 part	0.1 part
3.5 VOC - V66VC232 or 53-X145A Catalyst		
High, Mid & Satin Gloss		
Polane 8890	4 parts	4 parts
V66VC232 Catalyst or 53-X145A Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.25 part
R6K30 Reducer	-	-
R6K38 Reducer	0.3 part	0.3 part
Low Gloss		
Polane 8890	4.5 parts	4.5 parts
V66VC232 Catalyst or 53-X145A Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.15 part
R6K30 Reducer	-	-
R6K38 Reducer	0.3 part	0.3 part
2.8 VOC - V66V280 Catalyst		
High, Mid & Satin Gloss		
Polane 8890	5 parts	5 parts
V66V280 Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.25 part
R6K38 Reducer	1.2 parts	1.2 parts
Low Gloss		
Polane 8890	6 parts	6 parts
V66V280 Catalyst	1 part	1 part
*V6V768 Accelerator	-	0.15 part
R6K38 Reducer	1.4 parts	1.4 parts

*Add a maximum of 7 ounces of V6V768 Accelerator per gallon of combined High Gloss Polane.

*Add a maximum of 3.5 ounces of V6V768 Accelerator per gallon of combined Low Gloss Polane.

Potlife: 2 hours

Spreading Rate: 780-850 ft.²/gal. at 1.0 mil DFT (no application loss, varies by color)

Drying

(1.5 mils DFT @ 77° F, 50% RH, with max accelerator)
To Touch 30-40 minutes
Tack Free 3-4 hours
To Handle 4-6 hours
To Recoat No critical recoat time
Force Dry (no accelerator):
Flash 30 mins., 30 mins. @ 180° F

Flash Point (Pensky Martens Closed Cup): 85-92° F

Air Quality Data (theoretical):

- Photochemically reactive
- Volatile Organic Compounds (VOC, maximum, less exemptions)
 - as packaged 3.2 or 3.5 lbs./gal., 384 or 420 g/L
 - catalyzed and reduced as listed 2.8 or 3.5 lbs./gal., 335 or 420 g/L

Package Life:

Polane 8890 2 years, unopened
Catalysts 1 year, 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, 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.

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.

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.

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 as listed in this document. Maximum reduction is 5-10% (v) with R6K30 (MAK) to maintain ≤ 3.5 VOC, depending on catalyst selected. May add an additional 5% (v) of VOC exempt solvent. To maintain ≤ 2.8 VOC, reduce with exempt solvent only: R2KS1 (Oxso[®] 100), R6K38 (t-Butyl Acetate), R6K9 (Acetone), R7K111 (High Solids Compliant Thinner) or R7K7 (DiMethyl Carbonate, DMC).

May be applied by: Conventional
Airless
Air Assisted Airless
HVLP

Conventional Spray:
Air Pressure 50-60 psi
Fluid Pressure 5-10 psi

Airless Spray:
Pressure 1200-2600 psi
Tip 0.011-0.013"

Air Assisted Airless Spray:
Atomizing Air 25 psi
Fluid Pressure 1800 psi
Tip 0.011-0.013"

HVLP:
Air Pressure at the cap 7-10 psi
Fluid Pressure 7-10 psi

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

Cleanup: Clean tools/equipment immediately after use with R6K18 (Butyl Acetate), R6K30 (MAK) or Polane Reducers

Follow manufacturer's safety recommendations when using any solvent.

Performance Tests*

Substrate: 24 gauge Bonderite[®] 1000 P99X cold rolled steel panels
Coating: F63W100:V66V55, catalyzed 5:1, reduced

Dry Film Thickness: 2.0 mils DFT
Cure: 14 Days, Air Dry
Primer (Epoxy) E61A280
Impact Resistance, Direct 60 in lb
Impact Resistance, Reverse 40 in lb
Pencil Hardness F-2H
Taber Abrasion < 100 mg
1000 g, 1000 cycles, CS-17

Conical Mandrel, 1/8" Pass
Water Immersion (24 hours) No blisters
Adhesion 5B
QUV-A (1,000 hours) > 90% retention
Salt Spray
DTM (300 hours) ≤ 3.5 mm avg. creep
Primed (1,200 hours) ≤ 3.0 mm avg. creep
Heat Resistance, Dry 300° F

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

ADDITIONAL INFORMATION

- Polane 8890 coatings must be catalyzed. **Do not vary catalyst ratio.** The catalyst ratio has been established for optimum hardness, flexibility, gloss, chemical and solvent resistance. Slight over or under catalyzation will not seriously affect performance.
- Do not blend with any other polyurethane. 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.
- Polane coatings are not recommended for exterior use on wood.
- Do not spray hot, heat shortens pot life. Do not pump catalyzed material from drums into circulating systems. Friction heat developed by pumps and circulation will shorten pot life.
- Protect Polane enamels, catalyst and reducer from moisture as water affects pot life and properties. Store indoors.
- 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.
- Gloss Levels:**

Tint Bases	*Gloss Target (60°)
High Gloss – F63C101C	80+
Mid Gloss – F63T104C	60
Satin Gloss – F63T105C	30
Low Gloss - F63T103	<10

*Final gloss level varies by tint base.

- Compatible with Opticolor[®] Express & Phoenix[®] colorants. **Do not exceed the maximum tint loads listed below:**

Base	Maximum Tint Load (Oz. Colorant/Gal. Base)
High Gloss Clear, F63C101 & High Gloss Clear Tint Base, F63C101C	24
High Gloss White, F63W100	14
Mid Gloss Clear Tint Base, F63T104C	24
Satin Gloss Clear Tint Base, F63T105C	24
Low Gloss Clear, F63T103	24
Low Gloss White, F63W102	24

- Do not exceed the recommended amount of V6V768 per sprayable gallon of paint.** If using more than the recommended amount of accelerator, pot life, recoat time, adhesion, VOC and other properties may all be negatively affected. Coating performance must be thoroughly checked prior to implementing this strategy.
- Clean application equipment thoroughly before and after use.

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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.

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