



**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](http://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.<sup>2</sup>/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  $\leq 3.5$  VOC, depending on catalyst selected. May add an additional 5% (v) of VOC exempt solvent. To maintain  $\leq 2.8$  VOC, reduce with exempt solvent only: R2KS1 (Oxso<sup>®</sup> 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<sup>®</sup> 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)  $\leq 3.5$  mm avg. creep  
Primed (1,200 hours)  $\leq 3.0$  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<sup>®</sup> Express & Phoenix<sup>®</sup> 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](http://www.PaintDocs.Com).

Please direct any questions or comments to your local Sherwin-Williams facility.

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