# General Industrial Coatings

CC-D31

# Polane® 8890 Polyurethane Enamel

| | | | | | |
|---|---|---|---|---|---|
| High Gloss Jet Black | F63B104 | Low Gloss Black | F63B105 | Catalyst | V66V55 |
| High Gloss Clear Base | F63C101 | Low Gloss Clear Base | F63T103 | Catalyst | V66VC232 |
| High Gloss White Base | F63W100 | Low Gloss White Base | F63W102 | Catalyst | 53X145 |
| High Gloss Blend | F63ZX Series | Low Gloss Blend | F63LG Series | | |

## DESCRIPTION

**POLANE® 8890 Polyurethane Enamel** is a two component, aliphatic, acrylic topcoat with fast dry and flexible application characteristics.

**Advantages:**

- Available in a full gloss range
- Available in a broad range of colors
- 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 and E61A510
- Complies with 3.5 *VOC solvent emissions.
- Formulated to be HAPS free.

## CHARACTERISTICS

**60° Gloss:** 15-90

**Volume Solids:** 52 ± 2 %

**Viscosity** (catalyzed & reduced, varies by color)**:**

| | |
|---|---|
| High Gloss | 12-16 secs., #3 Zahn Cup |
| Low Gloss | 25-40 secs., #3 Zahn Cup |

**Recommended Film Thickness:**

| | |
|---|---|
| Mils Wet | 2.9-3.8 |
| Mils Dry | 1.5-2.0 |

**Air Quality Data** (theoretical):

- Non-photochemically reactive
- Volatile Organic Compounds (VOC)
  - as packaged, maximum, less exempt solvents 3.5 lbs/gal, 420 g/L
  - catalyzed and reduced as listed 3.5 lbs/gal, 420 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 (Continued)

**Mixing Ratio** (by volume)**:**

| V66V55 Catalyst | | |
|---|---|---|
| **High Gloss** | | |
| Polane 8890 | 5 parts | 5 parts |
| V66V55 Catalyst | 1 part | 1 part |
| [†]V6V768 Accelerator | - | 0.25 part |
| R6K30 Reducer | 0.3 part | 0.3 part |
| R6K38 Reducer | 0.3 part | 0.3 part |
| **Low Gloss** | | |
| Polane 8890 | 6 parts | 6 parts |
| V66V55 Catalyst | 1 part | 1 part |
| [#]V6V768 Accelerator | - | 0.15 part |
| R6K30 Reducer | 0.4 part | 0.4 part |
| R6K38 Reducer | 0.3 part | 0.3 part |

| V66VC232 Catalyst | | |
|---|---|---|
| **High Gloss** | | |
| Polane 8890 | 4 parts | 4 parts |
| V66VC232 Catalyst or 53X145 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 53X145 Catalyst | 1 part | 1 part |
| [#]V6V768 Accelerator | - | 0.15 part |
| R6K30 Reducer | - | - |
| R6K38 Reducer | 0.3 part | 0.3 part |

[†]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** (no application loss)**:** 830-850 ft.$^2$/gal. at 1.0 mil DFT

**Drying:** (1.5 mils DFT @ 77° F, 50% RH)

| | |
|---|---|
| To Touch | 20 minutes |
| Tack Free | 2 hours |
| To Handle | 4-8 hours |
| To Recoat | No critical recoat time |
| Force Dry: | 30 mins. @ 180° F |

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

**Package Life:**

| | |
|---|---|
| Polane 8890 | 2 years |
| V66V55 | 1 year, unopened |
| V66VC232 | 1 year, unopened |

## APPLICATION

Typical Setups

**Reduction:** Reduce as listed in this document. Maximum reduction is 5% (v) with R6K30 (MAK). May add an additional 5% (v) of VOC exempt solvent; R6K38 (TBAC) and R2KS1 (Oxsol 100) are recommended.

**May be applied by:** Conventional, Airless, Air Assisted Airless, HVLP

**Conventional Spray:**

| | |
|---|---|
| Air Pressure | 50-60 psi |
| Fluid Pressure | 5-10 psi |
| Reduction Rate | 5% R6K30 & 5% Exempt |

**Airless Spray:**

| | |
|---|---|
| Pressure | 1200-2600 psi |
| Tip | 0.011-0.013" |
| Reduction Rate | 5% R6K30 & 5% Exempt |

**Air Assisted Airless Spray:**

| | |
|---|---|
| Atomizing Air | 25 psi |
| Fluid Pressure | 1800 psi |
| Tip | 0.011-0.013" |
| Reduction Rate | 5% R6K30 & 5% Exempt |

**HVLP:**

| | |
|---|---|
| Air Pressure at the cap | 7-10 psi |
| Fluid Pressure | 7-10 psi |
| Reduction Rate | 5% R6K30 & 5% Exempt |

**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.


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## 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.

**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.

**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.

**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.

**Product Limitations:**

- 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.
- Blend with Phoenix® Colorants only. Do not exceed the maximum Phoenix tint loads listed below:

| | Maximum Tint Load (Oz. Phoenix/Gal. Base) |
|---|---|
| High Gloss Clear (F63C101) | 24 |
| High Gloss White (F63W100) | 14 |
| Low Gloss Clear (F63T103) | 8 |
| Low Gloss White (F63W102) | 8 |

- **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.

**Performance Tests**

Substrate: 24 gauge Bonderite® 1000 P99X cold rolled steel panels
Coating: F63W100:V66V55, catalyzed 5:1 reduced
Dry Film Thickness: 1.5 mils DFT
Cure: 14 Days, Air Dry

| | |
|---|---|
| Impact Resistance, Direct | 60 in lb |
| Impact Resistance, Indirect | 40 in lb |
| Pencil Hardness | F-2H* |
| *Pencil Hardness may vary, depending on dry film thickness, substrate and tester. | |
| Taber Abrasion | < 100 mg |
| 1000 g, 1000 cycles, CS-17 | |
| Conical Mandrel, 1/8" | Pass |
| Water Immersion | 24 hours |
| Adhesion | 5B |
| QUV-A | 1000 hours |
| Salt Spray, DTM | 300 hours |
| Salt Spray, Primed | 1200 hours |
| Heat Resistance, Dry | 300° F |



## 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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