



## Product Finishes

# CC-D28 POLANE<sup>®</sup> D8700

## 2.8 VOC DTM URETHANE INTERMIX

High Gloss Blending White ..... F63W180  
Mid Gloss Blending White ..... F63WC182  
Catalyst ..... V66V55

High Gloss Blending Clear ..... F63CC181  
Mid Gloss Blending Clear ..... F63TC183  
Catalyst ..... V66VC232

High Gloss Jet Black ..... F63BC164  
Custom Blend ..... F63DM Series  
Catalyst ..... V66V280

### DESCRIPTION

**POLANE<sup>®</sup> D8700** is a full gloss range, two component urethane topcoat inter-mix system that can be applied directly to blasted hot rolled steel or pretreated (iron or zinc phosphate) metal substrates. No primer is necessary.

HVLP application requires use of V66V280 catalyst and possible reduction up to 10% (vol.) with MAK.

#### Advantages:

- Meets the EPA requirements of under 2.8 lbs/gal VOC catalyzed and reduced\*
- No exempt solvents
- Good chemical resistance
- Good corrosion resistance
- Good weathering performance
- Air dry or force dry curing
- Available in a broad range of colors
- Apply by conventional, airless, HVLP, electrostatic spray and air-assisted airless

\*VOC compliance limits vary from state to state; please consult local Air Quality rules and regulations.

### CHARACTERISTICS

**Gloss:** 30-90 units at 60°

**Volume Solids:** 60-61%  
catalyzed & reduced, may vary by color

**Viscosity:** 20-30 seconds, #3 Zahn Cup  
catalyzed & reduced

#### Recommended film thickness:

Mils Wet 5.0-6.0  
Mils Dry 3.0-3.5

**Spreading Rate** (no application loss)  
630-770 sq ft/gal @ 1.25-1.50 mils DFT

| Conventional, Air Assisted Airless & Electrostatic Application |         |          |
|--|---------|----------|
| High Gloss   |         |          |
| Hardener   | V66V55  | V66VC232 |
| Polane D8700 : Hardener Ratio                                  | 5 : 1   | 4 : 1    |
| Reducer (Max. by vol.)   | 7.5%    | 2.5%     |
| Pot Life (Mins.)   | 90      | 90       |
| Mid Gloss  |         |          |
| Polane D8700 : Hardener Ratio                                  | 6 : 1   | 4 : 1    |
| Reducer (Max. by vol.)   | 6.5%    | 2.5%     |
| Pot Life (Mins.)   | 90      | 90       |
|  |         |          |
| HVLP Application   |         |          |
| High Gloss   |         |          |
| Hardener   | V66V280 |          |
| Polane D8700 : Hardener Ratio                                  | 5 : 1   |          |
| Reducer (Max. by vol.)   | 10.0%   |          |
| Pot Life (Mins.)   | 90      |          |
| Mid Gloss  |         |          |
| Polane D8700 : Hardener Ratio                                  | 6 : 1   |          |
| Reducer (Max. by vol.)   | 10.0%   |          |
| Pot Life (Mins.)   | 90      |          |

#### Force Drying (3.0-3.5 mils DFT):

Flash off time 30 minutes  
30 minutes at 180° F  
or \*30 minutes at 140° F

\*Accelerator (V70VC132, GA1097 or GA1098 must be used if force drying at 140° F

#### Accelerator:

V70VC132 1 ounce per gallon of Polane D8700

or

GA1097 or GA1098 1-3 ounces per gallon of Polane D8700

#### Air Dry (3.0-3.5 mils DFT 77°F, 50% RH):

With 1 ounce of Accelerator, V70VC132, per gallon of Polane D8700

To Touch: 90 minutes

Tack Free: 4-5 hours

To Handle: 6 hours

Dry Hard: 24 hours

**Pot Life:** 60 minutes

**Flash Point:** 81° F  
Pensky-Martens Closed Cup

#### Package Life:

Polane D8700: 18 months, unopened  
V66V55: 12 months, unopened  
V66VC232: 12 months, unopened  
V66V280: 24 months, unopened

#### Air Quality Data:

- Non-photochemically reactive
- Volatile Organic Compounds (VOC) theoretical catalyzed and reduced:
- 2.8 lb./gal, 336 g/l maximum
- Volatile Hazardous Air Pollutants (VHAPS) as packaged, no reportable VHAPS

### 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 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.

**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 Rate (by volume):**  
With V66V55

| High Gloss |           | Mid Gloss |           |
|------------|-----------|-----------|-----------|
| 2.8 VOC    | 7.5% Max  | 2.8 VOC   | 6.5% Max  |
| 3.0 VOC    | 12.0% Max | 3.0 VOC   | 10.0% Max |

With V66VC232

| High Gloss |          | Mid Gloss |          |
|------------|----------|-----------|----------|
| 2.8 VOC    | 2.5% Max | 2.8 VOC   | 2.5% Max |
| 3.0 VOC    | 6.5% Max | 3.0 VOC   | 6.5% Max |

With V66V280

| High Gloss |           | Mid Gloss |           |
|------------|-----------|-----------|-----------|
| 2.8 VOC    | 10.0% Max | 2.8 VOC   | 10.0% Max |
| 3.0 VOC    | 14.0% Max | 3.0 VOC   | 14.0% Max |

**May be applied by:**

|                      |               |
|----------------------|---------------|
| Conventional         | Airless       |
| Air Assisted Airless | Electrostatic |
| HVLP                 |               |

**Conventional Spray:**

|                |                 |
|----------------|-----------------|
| Air Pressure   | 50-60 psi       |
| Fluid Pressure | 8-12 psi        |
| Cap/Tip        | 0.055-0.070 in. |
| Reducer        | R6K30 (MAK)**   |

**Air Assisted Airless:**

|                     |               |
|---------------------|---------------|
| Air Assist Pressure | 30 psi max    |
| Fluid Pressure      | 1200-1800 psi |
| Cap/Tip             | 0.013 in.     |
| Reducer             | R6K30 (MAK)** |

**HVLP:**

|                         |               |
|-------------------------|---------------|
| Air Pressure at the cap | 10 psi max    |
| Fluid Pressure          | 6-8 psi       |
| Cap/Tip                 | 0.055-0.070   |
| Reducer                 | R6K30 (MAK)** |

\*\* PM Acetate can be used as a substitute for MAK.

**Cleanup:**

Clean tools/equipment immediately after use with R6K30 MAK or PM Acetate. MEK and MIBK may also be used but are not HAPS compliant. Follow manufacturer's safety recommendations when using any solvent.

**Performance Tests**

**Substrate:** Bonderite 1000 P99X, cold rolled steel panels at 3.0-3.5 mils DFT.

**Cure Condition:** 180°F for 30 mins, 7 days at ambient conditions.

**Pencil Hardness** (ASTM D3363).....2H

**Adhesion** (ASTM D3359) ..... 5B

**Humidity Resistance** (ASTM D1735)

Duration .....400 hrs

Recovery.....2 hrs

Adhesion..... 5B

Blisters..... None

**Water Immersion** (ASTM D870)

Duration .....300 hrs

Recovery.....4 hrs

Adhesion..... 5B

Blisters..... None

**Corrosion Resistance**

**Salt Spray** (ASTM B117) .....500 hrs

Avg. Scribe Creep.....3 mm (max)

(ASTM D1654, Procedure A, Method 1)

Field blisters ..... None

**Weatherability, Xenon** (ASTM G155-05a, Cycle 7A)

Duration .....1200 hrs

**Gloss Retention:**

High Gloss.....80% min

Mid Gloss .....75% min

Color Retention..... 3 delta E

**Chemical Resistance (Spot test\*)**

Water (24 hr).....Pass

Gasoline (1 hr).....Pass

10W30 Motor Oil (24 hr) .....Pass

Diesel Fuel (1 hr) .....Pass

Diesel Engine Oil (24hr).....Pass

50% Antifreeze (6 hrs) .....Pass

Grease (24hr) .....Pass

\* No evidence of degraded adhesion, flaking, blistering, discoloration, or degradation of gloss.

**ADDITIONAL INFORMATION**

- The mix ratios and catalyst selections outlined above are critical to achieve the desired gloss levels.
- **Do not vary catalyst ratio.** Maintain an exact ratio. The catalyst ratio has been established for optimum hardness, flexibility, gloss, chemical and solvent resistance.
- Surface preparation and treatment is critical to performance. Product is designed for phosphate pretreated steel or blasted hot rolled steel
- 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-products could cause improper cure and adhesion failure in use.
- Blend with Phoenix® Colorants only
- Do not blend with any other coating quality. No other catalysts, colorants or reducers are recommended because foreign materials such as alcohols glycols and lacquer thinners affect film performance properties.
- If recoating after more than 7 days cure, sand lightly to ensure intercoat adhesion.

**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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