



Product Finishes

CC-D28 POLANE[®] 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[®] 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.

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

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