Technical Data Sheet

Aerospace Coatings



Desothane® CA8300 HS Polyurethane Topcoat Gloss

Product Description

CA8300 is a high durability, polyurethane topcoat, designed for use as both an internal topcoat for aircraft structural components as well as an external topcoat for military aircraft and land based defense equipment.

- High solids, low VOC
- Chemical Agent Resistant Coating (C.A.R.C.)
- Excellent UV resistance & long term durability
- Excellent resistance to skydrol hydraulic fluid
- Service temperature -55 to 150°C (-67°F to 302°F)
- · Can be used with PPG military selectively strippable scheme
- Also available in controlled military grades separate TDS available on request

Components



Mix Ratio (by volume)

CA8300 (Base) 2 parts
 CA8300B (Activator) 1 part
 CA8300C1 or C2 (Reducer) 1 part

Specifications



CA8300 topcoat is qualified to:

- BS2X34 Type A & B
- Def Stan 80-225

CA8300 meets the performance requirements of:

MIL-PRF-85285

Product Compatibility

CA8300 is compatible with the following primer specifications:

- Def Stan 80-206
- Def Stan 80-207
- Def Stan 80-225
- BS2X33 A & B
- Mil-PRF-23377

Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.

Surface Preparation and Pretreatment



Ensure surface is clean, dry and intact, using a high performance solvent cleaner. DeSoto[®] CN20 or Desoclean[™] 45 solvent cleaner are recommended. Observe recommended overcoating window for primers.

Instructions for Use



Base may require mechanical agitation. Ensure all components are adequately dispersed. Thoroughly stir or shake the base component until a smooth uniform mix is obtained. Immediately after adding the activator to the base, stir thoroughly until uniform. Add required reducer while stirring.

Note: All products and components should be placed in ambient conditions of 15-30°C (59-86°F) for at least 24 hours prior to mixing and application.



Induction Time:

Not required



Viscosity: (23°C/73°F)

AFNOR4
 BSB3
 FORD4
 ISO4
 ZAHN2
 20 - 25 seconds
 40 - 60 seconds
 40 - 60 seconds
 25 - 29 seconds

Note: Viscosities quoted are typical ranges obtained when using specified mix ratio.



Pot Life:

With C1 Reducer 4 hours @ 21 - 25°C (70 - 77°F) With C2 Reducer 2 hours @ 21 - 25°C (70 - 77°F)

Application Guidelines

Recommended Application Conditions:

Temperature 15 - 35°C (59 - 95°F) Relative Humidity 30 - 85%

Application:

Apply 1 -2 double track coats to achieve the recommended dry film thickness



Theoretical Coverage: (ready for use)

13 m²/Lt @ 40 µm dry film thickness 520 ft²/US gal @ 1.6 mil dry film thickness

Recommended Dry Film Thickness:

35 - 45 µm 1.4 - 1.8 mil



Dry Film Density: (white)

1.52 - 1.63 g/cm³ 12.6 - 13.6 lbs/US gal

Dry Film Weight: (white)

61 - 65 g/m² @ 40 μ m dry film thickness 0.0125 - 0.0132 lbs/ft² @ 1.6 mil dry film thickness

Note: These application guidelines represent PPG's best advice for usage in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.

Equipment:



Equipment Type	Tip Size	Pressure
Airmix	9 to 11 thou	29 to 51 psi (2 to 3.5 bar)
HVLP Air Spray	1 to 1.8mm	29 to 44 psi (2 to 3 bar)
Conventional Air Spray	1 to 1.8mm	29 to 44 psi (2 to 3 bar)
Airless	11 thou	1015 psi (70 bar)
Air Assisted Airless Electrostatic	9 to 11 thou	29 to 51 psi (2 to 3.5 bar)
Low pressure Electrostatic Type XS4 Graco	1.2 to 1.5mm	58 to 73 psi (4 to 5 bar)

Equipment Cleaning:

Clean spray equipment before use and as soon as possible after use. DeSoto[®] CN20 or Desoclean[™] 45 solvent cleaners are recommended.

Physical Properties



Colour:

Wide range of colours available



Gloss:

>85 units with a 60° gloss meter



Drying Times 50% Relative Humidity	8300C1 Reducer @23°C (73°F)	8300C2 Reducer @23°C (73°F)	8300C1 & 8300C2 Reducers @ 70°C (158°F)
Dust Free	1 hour	30 minutes	20 minutes
Through Dry	6 hours	4 hours	30 minutes
Dry to Tape	6 to 8 hours approx.	3 to 4 hours approx.	1 hour
Dry to Overcoat	1 hour (min.) 24 hours (max.)	30 minutes (min.) 24 hours (max.)	30 minutes
Full Cure	7 days	7 days	3 hours

Note: Drying times listed above are dependent upon film thickness applied, air flow conditions and application technique.



Special Note: (Aged Topcoat Re-application)

After 24-48 hours the topcoat must be cleaned and abraded using Desoclean[™] 45 solvent cleaner and Scotch-Brite[™] pads prior to overcoating.



Flash Off Time:

15 - 30 minutes prior to force dry



VOC: (ASTM)

Mixed ready for use	<420 g/Lt
CA8300 Base Component	<350 g/Lt
CA8300B Activator	110 g/Lt
CA8300C1 Reducer	950 g/Lt
CA8300C2 Reducer	900 g/Lt



Flash Point:

CA8300 Base Component	27°C (81°F)
CA8300B Activator	25°C (77°F)
CA8300C1 Reducer	35°C (95°F)
CA8300C2 Reducer	25°C (77°C)

Shelf Life:

CA8300 Base Component 24 months in original unopened container CA8300B Activator 24 months in original unopened container CA8300C1 & C2 Reducer 24 months in original unopened container

Note: Shelf life may vary due to OEM specification requirements. Refer to container label for specific shelf life information.

<u>Note:</u> The application and performance property values above are typical for the material, but not intended for use in specifications or for acceptance inspection criteria because of variations in testing methods, conditions and configurations.

Storage Recommendations



Inspect the condition of the container to ensure compliance. The material should be stored at temperatures between 5°C to 35°C (41°F to 95°F) to ensure shelf life.

Note: When procuring to a qualified material specification, follow those storage instructions.

Health Precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Safety Data Sheet (SDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An SDS is available on request. Avoid overexposure. Obtain medical care in case of extreme overexposure.

For industrial use only. Keep away from children.

Additional information can be found at: www.ppgaerospace.com
For sales and ordering information call the local PPG office at the numbers listed below:

Asia Pacific

ASC – Australia Tel 61 (3) 9335 1557 Fax 61 (3) 9335 3490

ASC – Japan Tel 81 561 35 5200 Fax 81 561 35 5201

ASC – South East Asia Tel 65 6861 1119 Fax 65 6861 6162

ASC - Suzhou Tel (86-512) 6661 5858 Fax (86-512) 6661 6868

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ASC – Central Europe Tel 49 (40) 742 193 10 Fax 49 (40) 742 139 69

ASC - Middle East & India Tel (971) 4 883 9666 Fax (971) 4 883 9665

ASC - North Europe Tel 44 (0) 1388 770222 Fax 44 (0) 1388 770288

ASC - South Europe Tel 33 (0) 235 53 43 71 Fax 33 (0) 235 53 54 44

Americas

1 (818) 362-6711 or 1-800-AEROMIX

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