

Desothane® CA8351 HS Polyurethane Topcoat Semi Matt

TECHNICAL DATA SHEET

Product Description

CA8351 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)

- | | |
|-----------------------|---------|
| • CA8351 (Base) | 3 parts |
| • CA8310B (Activator) | 1 part |

Specifications



CA8351 is qualified to:

- BS2X34A & BS2X34B
- MM0114 (limited colours)
- SP-J-513-C0083 Type II, Class B
- AIMS 04-04-003

CA8351 meets the performance requirements of:

- Mil-PRF-85285

Product Compatibility

CA8351 is compatible with the following primers specifications:

- | | |
|-------------------|-------------------|
| • BS2X33 A+B | • SP-J-513-A-0013 |
| • Mil-PRF-23377 | • SP-J-513-A-0016 |
| • Def Stan 80-206 | |
| • Def Stan 80-207 | |

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

Desothane[®] CA8351 HS Polyurethane Topcoat Semi Matt

Surface Preparation and Pretreatment



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

Instructions for Use



Base may require mechanical agitation. Ensure all components are adequately dispersed. Before adding the activator to the base, 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. Product is now ready for use.

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:

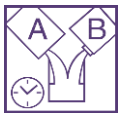
Not required



Viscosity: (23°C/73°F)

• AFNOR4	28 - 40 seconds
• BSB3	55 - 85 seconds
• BSB4	30 - 42 seconds
• FORD4	24 - 36 seconds
• ISO4	55 - 90 seconds
• ZHAN2	35 - 48 seconds

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



Pot Life:

4 hours @ 21 - 25°C (70-77°F)

Application Guidelines

Recommended Application Conditions:

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

Application:

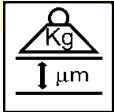
Apply 1 - 2 double-track or cross-coats to achieve the recommended dry film thickness.

Desothane[®] CA8351 HS Polyurethane Topcoat Semi Matt



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)
 1.92 g/cm³
 16 lbs/US gal

Dry Film Weight: (white)
 77 g/m² @ 40 µm dry film thickness
 0.015 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, CN44 or Desoclean[™] 45 solvent cleaners are recommended.

Desothane[®] CA8351 HS Polyurethane Topcoat Semi Matt

Physical Properties



Colour:

Wide range of colours available



Gloss:

12 - 18 units with a 60° gloss meter



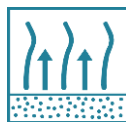
Drying Times @ 23°C (73°F) 50% Relative Humidity	23°C (73°F)	70°C (158°F)
Dust Free	1 hour	20 minutes
Dry to Handle	4 hours	30 minutes
Dry to Tape	6 hours	1 hour
Dry to Sand	8 hours	45 minutes
Dry to Overcoat	1 hour (min.) 72 hours (max.)	30 minutes
Full Cure	7 days	3 hours

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



Special Note: (aged-topcoat re-application)

After 72 hours the topcoat must be cleaned and abraded using Desoclean[™] 45 solvent cleaner and Scotch-Brite[™] pads prior to overcoating.



Flash Off:

15 - 30 minutes prior to force dry.



VOC: (ASTM)

Mixed ready for use	<420 g/Lt
CA8351 Base Component	<460 g/Lt
CA8310B Activator	290 g/Lt



Flash Point:

CA8351 Base Component	24°C (75°F)
CA8310B Activator	25°C (77°F)



Desothane[®] CA8351 HS Polyurethane Topcoat Semi Matt

Shelf Life:

CA8351 Base Component
CA8310B Activator

24 months in original unopened container
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.

Note: 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.

Desothane[®] CA8351 HS Polyurethane Topcoat Semi Matt

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

ASC – Tianjin

Tel (86-022) 2482 8625
Fax (86-022) 2482 8600

Americas

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

Europe and Middle East

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

Desoclean, Desothane, and DeSoto are trademarks of PRC-DeSoto International, Inc.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

PPG Aerospace

Sealants and Coatings

Darlington Road

Shildon, Co Durham UK

DL4 2QP

www.ppgaerospace.com

Issue Date: 02/15

Lit: 4237