

## Desothane<sup>®</sup> CA8311 HS Polyurethane Topcoat Matt

### Product Description

CA8311 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<sup>®</sup> 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)

- CA8311 (Base) 3 parts
- CA8310B (Activator) 1 part

### Specifications



CA8311 is qualified to:

- BS2X34A&B
- ECS2213 (limited colours)
- MM0114 (limited colours)
- SP-J-513-C-0083 Type II Class A

CA8311 meets the performance requirements of:

- Def Stan 80-225 (except gloss)
- Mil-PRF-85285 Type I

#### **Product Compatibility**

CA8311 is compatible with the following primers specifications:

- BS2X33 A+B
- Mil-PRF-23377
- Def Stan 80-225 Type 1 (ex Def Stan 80-206)
- Def Stan 80-225 Type 2 (ex Def Stan 80-207)
- SP-J-513-A-0013
- SP-J-513-A-0016

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

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## Surface Preparation and Pretreatment



Ensure surface is clean, dry and intact using a high performance solvent cleaner. DeSoto<sup>®</sup> CN20 or Desoclean<sup>™</sup> 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:**

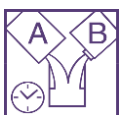
Not required



### **Viscosity:** ( 23°C/73°F) Mix as described DO NOT THIN

- |          |                 |
|----------|-----------------|
| • 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:**

Maximum 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.

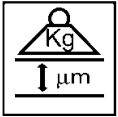
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**Theoretical Coverage:** (ready for use)  
 14 m<sup>2</sup>/Lt @ 40 µm dry film thickness  
 560 ft<sup>2</sup>/US gal @ 1.6 mil dry film thickness

**Recommended Dry Film Thickness:**

35 - 45 µm  
 1.4 - 1.8 mil



**Dry Film Density:**(white)  
 1.92 g/cm<sup>3</sup> 16 lbs/USgal

**Dry Film Weight:** (white)  
 77 g/m<sup>2</sup> @ 40 µm dry film thickness  
 0.015 lbs/ft<sup>2</sup> @ 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.

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## Physical Properties



Colour:  
Wide range of colours available



Gloss:  
<5 units with a 60° gloss meter

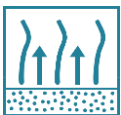


Drying Times @ 50% R.H.	23°C (73°F)	70°C (158°F)
Dust Free	1 hour	20 minutes
Dry to Handle	4 hours	30 minutes
Dry to Tape	6 hours	1 hour
Dry to Sand	8 hours	45 minutes
Dry to Overcoat	1 hour (min) 72 hours (max) *	30 minutes *
Full Cure	7 days	3 hours

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



\* Special Note: (aged-topcoat re-application)  
After >24 hours air dry or 30 minutes 70°C (158°F) force dry, the topcoat must be cleaned and abraded using Desoclean<sup>™</sup> 45 solvent cleaner and Scotch-Brite<sup>™</sup> pads prior to overcoating.



**Flash Off Time:**  
15 - 30 minutes prior to force dry.



**VOC:** (ASTM)  
Mixed ready for use <420 g/Lt  
CA8311 Base Component <460 g/Lt  
CA8310B Activator 290 g/Lt



**Flash Point:**  
CA8311 Base Component 27°C (81°F)  
CA8310B Activator 25°C (77°F)

**Shelf Life:**  
CA8311 Base Component 24 months in original unopened container  
CA8310B Activator 24 months in original unopened container

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*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.*

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## 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](http://www.ppgaerospace.com)**

**For sales and ordering information call the local PPG office at the numbers listed below:**

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