# Technical Data Sheet Aerospace Coatings



# Desothane® HS CA8100 Abrasion Resistant Topcoat

## **Product Description**

Desothane® HS CA8100 is a polyurethane topcoat designed to provide a high degree of abrasion resistance. Desothane® HS CA8100 is intended for use on surfaces where there is a high risk of abrasion due to contact with moving parts.

- Contains Teflon® fluoropolymer for excellent abrasion resistance
- Low VOC
- · Chemical resistant
- Excellent UV durability

### Components



### Mix Ratio (by volume)

CA8100 (Base) 2 parts
 CA8000B (Activator) 1 part
 CA8000C2 (Reducer) 1 part

### **Specifications**



CA8100 is qualified to:

- AIMS 04-04-027 (M09001 grey only)
- RRJ0000-RE-314-484

CA8100 meets the performance requirements of:

BMS 10-86

#### **Product Compatibility**

CA8100 is compatible with the following primers specifications:

- AIMS 04-04-001
- AIMS 04-04-003
- AIMS 04-04-004
- AIMS 04-04-026
- AIMS 04-04-054

- AIMS 04-04-055
- AIMS 04-04-058
- ASNA 4248
- BMS 5-95
- BS2X33A+B

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<sup>®</sup> CN20 or Desoclean<sup>™</sup> 45 solvent cleaners are recommended. Observe recommended overcoating windows.

# **Instructions for Use**



Base component should be stirred well before use. Ensure all components are adequately dispersed. Mix base with activator and reducer and stir thoroughly. **DO NOT ADJUST VISCOSITY**.

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	18 - 24 seconds
•	BSB3	33 - 46 seconds
•	BSB4	19 - 25 seconds
•	FORD4	16 - 21 seconds
•	ISO4	28 - 43 seconds
•	ZAHN2	21 - 28 seconds

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



#### Pot Life:

1 hours @ 21 - 25°C (70 - 77°F)

# **Application Guidelines**

#### **Recommended Application Conditions:**

Temperature 15 - 30°C (59 - 86°F)

Relative Humidity 30 - 85%

#### Application:

For spray application, apply 4 - 5 uniform coats, 30 - 40 minutes between coats, to achieve a dry film thickness of 125 -250  $\mu$ m.



Theoretical Coverage: (ready for use)

3 m<sup>2</sup>/Lt @ 200 µm dry film thickness 872 ft<sup>2</sup>/US gal @ 8 mil dry film thickness

#### **Recommended Dry Film Thickness:**

125 - 250 μm 5 - 10 (mil)



#### **Dry Film Density:**

1.5 - 1.6 g/cm<sup>3</sup> 13.0 - 13.4 lbs/US gal

### **Dry Film Weight:**

300 - 320 g/m $^2$  @ 200  $\mu$ m dry film thickness 0.061 - 0.065 lbs/ft $^2$  @ 8 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
HVLP Air Spray	1.2 to 1.4 mm	14 psi (1 bar)
Conventional Air Spray	1.4 to 1.5 mm	43 to 72 psi (3 to 5 bar)
Low Pressure Electrostatic	1.2 to 1.5 mm	72 to 87 psi (5 to 6 bar)



The topcoat can also be applied by brush or roller if required.

#### **Equipment Cleaning:**

Clean spray equipment before use and as soon as possible after use. DeSoto<sup>®</sup> CN20, CN44 or Desoclean<sup>™</sup> 45 solvent cleaners are recommended.

# **Physical Properties**



#### Colour:

Grey (8100M09001) Whites (8100M8001) and (8100M8003)



#### Gloss:

> 60 units with a 60° gloss meter



DRYING TIMES	23°C (73°F)	60°C (140°F)
Dust Free	1 hour	
Dry to Tape	3 to 4 hours	30 minutes
Dry to Overcoat	4 to 48 hours	
Full Cure	7 days	3 hours

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



#### Flash Off Time:

30 minutes after application of final coat.



#### **Special Note:**

For aircraft re-painting a minimum period of 48 hours is recommended before flying.



#### VOC: (ASTM)

Mixed ready for use	<420 g/Lt
CA8100 Base Component	350 g/Lt
CA8000B Activator	115 g/Lt
CA8000C2 Reducer	865 g/Lt



#### Flash Point:

CA8100 Base Component	33°C (82°F)
CA8000B Activator	47°C (117°F)
CA8000C2 Reducer	22°C (77°F)

#### Shelf Life:

CA8100 Base Component	24 months in original unopened container
CA8000B Activator	24 months in original unopened container
CA8000C2 Reducer	10 years 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

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

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