# Technical Data Sheet Aerospace Coatings



# Desothane® CA9100 Abrasion Resistant Topcoat

## **Product Description**

Desothane® CA9100 is designed for use on surfaces where there is a high risk of abrasion due to contact of moving parts.

- High solid, low VOC
- High degree of abrasion resistance
- Excellent UV durability
- Service temperature -54°C to 177°C (-65°F to 350°F)
- Available in gloss or matt finish

## **Components**



#### Mix Ratio (by volume)

CA9100 (Base)
 CA8000B (Activator)
 CA8000C2 or CA8000C3 (Reducer)
 1 part

## **Specifications**



CA9100 is qualified to:

- AIMS 04-04-007 (Airbus White and Grey colours only)
- AIMS 04-04-027 (Airbus White and Grey colours only)
- RRJ0000-RE-314-484

CA9100 is compatible with the following primer schemes:

- P99/PAC33 or P99/PAC33CF
   5
- PR143
- CA7002
- PR205

- 513X377
- CA7045
- CA7049

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 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. 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
 18 - 24 seconds
 16 - 21 seconds
 28 - 43 seconds
 21 - 28 seconds

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



#### Pot Life:

1.5 hour @ 21 - 25°C (70 - 77°F) - Using CA8000C2 Reducer 1 hour @ 21 - 25°C (70 - 77°F) - Using CA8000C3 Reducer

# **Application Guidelines**

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

Temperature 15 - 35°C (40 - 95°F)

Relative Humidity 30 - 85%

#### Application:

Apply as a full single coat followed by a heavier double coat.

Overcoat Times

30-45 minutes using CA8000C2 Reducer
15-30 minutes using CA8000C3 Reducer



**Theoretical Coverage:** (ready for use)

6 m²/Lt @ 100 μm dry film thickness 240 ft²/US gal @ 4 mil dry film thickness

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

•  $50 - 70 \, \mu m$  (for low friction surface application)  $2 - 2.8 \, mil$ 

100 - 150 μm (for impact/wear resistance application)
 4 - 6 mil



#### Dry Film Density: (white)

1.60 g/cm<sup>3</sup> 13.3 lbs/US gal

#### **Dry Film Weight:**

160 g/m $^2$  @ 100  $\mu$ m dry film thickness 0.032 lbs/ft $^2$  @ 4 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	725 to 870 psi (50 to 60 bar)
HVLP Air Spray	1.5 to 1.8 mm	14 psi (1 bar max)
Conventional Air Spray	1.5 to 1.8 mm	43 to 72 psi (3 to 5 bar)
Airless	Not Recommended	
Air-assisted Airless Electrostatic	1.2 mm	725 to 870 psi (50 to 60 bar)
Low Pressure Electrostatic	1.2 to 1.5 mm	72 to 87 psi (5 to 6 bar)



CA9100 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:

Airbus Whites (9100M08001, 9100M08002 & 9100M08003) Airbus Greys (9100M09001 & 9100M09002) Limited range of additional colours



#### Gloss:

Gloss colours > 60 units with a 60° gloss meter
Matt colours < 5 units with a 60° gloss meter



DRYING TIMES @ 23°C (73°F) 50% R.H	CA8000C2 REDUCER	CA8000C3 REDUCER
Dust Free	1 hour	30 minutes
Hard Dry	3 hours	1.5 hours
Dry to Tape	3 to 4 hours	1 to 2 hours
Dry to Overcoat	4 hours (min.) 48 hours (max.)	2 hours (min.) 24 hours (max.)
Dry to Fly	40 hours	24 hours
Full Cure	7 days	7 days
Dry to Tape @ 60°C (140°F)	30 minutes	15 minutes

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
CA9100 Base Component	<360 g/Lt
CA8000B Activator	115 g/Lt
CA8000C2 Reducer	860 g/Lt
CA8000C3 Reducer	860 g/Lt



#### Flash Point:

CA9100 Base Component	33°C (91°F)
CA8000B Activator	47°C (117°F)
CA8000C2 Reducer	22°C (72°F)
CA8000C3 Reducer	22°C (72°F)
Shelf Life:	,

CA9100 Base Component

CA8000B Activator

CA8000C2 Reducer

CA8000C3 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**

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