Desothane® CA9100 Abrasion Resistant Topcoat

Product Description

Desothane® HS CA9100 is a polyurethane topcoat designed to provide a high degree of abrasion resistance. Desothane® HS CA9100 is intended for use on surfaces where there is a high risk of abrasion due to contact with 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)	2 parts
• CA8000B (Activator)	1 part
• CA8000C2, CA8000C3 or CA8000C5 (Reducers)	1 part

Specifications

CA9100 is qualified to:

- AIMS 04-04-007 (Airbus White & Grey and FS36173 Grey only)
- AIMS 04-04-027 (Airbus White & Grey and FS36173 Grey only)
- PPG Standard (When Used with CA8000C5 Reducer)
- RRJ0000-RE-314-484

CA9100 is compatible with the following primer schemes:

- P99/PAC33 or P99/PAC33CF
- 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® CN20 or Desoclean™ 45 solvent cleaners are recommended. Observe recommended overcoating window for primers.

Desothane® CA9100 Abrasion Resistant Topcoat

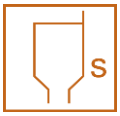
Instructions for Use

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	18 - 24 seconds
• BSB3	33 - 46 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:

1.5 hour @ 21 - 25°C (70 - 77°F) - Using CA8000C2 Reducer
1 hour @ 21 - 25°C (70 - 77°F) - Using CA8000C3 Reducer
30 minutes @ 21 - 25°C (70 - 77°F) - Using CA8000C5 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
10-15 minutes using CA8000C5 Reducer

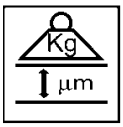
Desothane® CA9100 Abrasion Resistant Topcoat

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 µm (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/cm³
13.3 lbs/US gal

Dry Film Weight:

160 g/m² @ 100 µm dry film thickness
0.032 lbs/ft² @ 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® CN20, CN44 or Desoclean™ 45 solvent cleaners are recommended.

Desothane® CA9100 Abrasion Resistant Topcoat

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	CA8000C5 REDUCER
Dust Free	1 hour	30 mins	
Hard Dry	3 hours	1.5 hours	
Dry to Tape	3 to 4 hours	1 to 2 hours	45 to 60 mins
Dry to Overcoat	4 hours (min.) 48 hours (max.)	2 hours (min.) 24 hours (max.)	1 to 12 hours
Dry to Fly	40 hours	24 hours	
Full Cure	7 days	7 days	7 days
Dry to Tape @ 60ºC (140ºF)	30 mins	15 mins	10 mins

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
CA8000C5 Reducer	860g/Lt

Desothane® CA9100 Abrasion Resistant Topcoat

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)
CA8000C5 Reducer	22°C (72°F)

Shelf Life:

CA9100 Base Component	24 months in original unopened container
CA8000B Activator	24 months in original unopened container
CA8000C2 Reducer	24 months in original unopened container
CA8000C3 Reducer	24 months in original unopened container
CA8000C5 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.

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® CA9100 Abrasion Resistant Topcoat

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:

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