



Desothane[®] HS CA8000 Polyurethane Topcoat (EMEA)

TECHNICAL DATA SHEET

Product Description

Desothane[®] HS CA8000 is a low VOC, polyurethane topcoat used to provide protection and decoration to aircraft exterior surfaces. CA8000 topcoat is designed to be applied over Desoprime[™] epoxy primers.

- High Solids, low VOC
- Excellent adhesion to epoxy primers
- Excellent gloss and colour retention
- Excellent fluid resistance
- Can be applied in a wide range of environmental conditions
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix Ratio (by volume)

- | | |
|----------------------------|---------|
| • CA8000 (Base) | 2 parts |
| • CA8000B (Activator) | 1 part |
| • CA8000C Series (Reducer) | 1 part |

Specifications



CA8000 is qualified to:

- | | | |
|------------------|----------------|--------------|
| • AIMS 04-04-012 | • AMS 3095 | • BMS 10-125 |
| • AIMS 04-04-013 | • BAMS 565-002 | • BS2X34B |
| • AIMS 04-04-025 | • BAMS 565-009 | • DHMS C4.04 |
| • AIMS 04-04-031 | • BMS 10-60 T2 | • HMRC0155A |
| • AIMS 04-04-032 | • BMS 10-72 T8 | • MM 0114 |
| | | • MSRR 1006 |

CA8000 meets the performance requirements of:

- AIMS 04-04-014
- Mil-PRF-85285

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Product Compatibility

CA8000 is compatible with the following primers specifications:

- AIMS 04-04-001
- AIMS 04-04-004
- ABP 4-1123
- ABP 4-2127
- ABP 5-1351
- AMS 3095
- BAMS 565-008
- BMS 10-79
- 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[®] CN20 or Desoclean[™] 45 solvent cleaners are recommended. Observe recommended overcoating windows.

Instructions for Use



Base component should be manually stirred only. Ensure all components are adequately dispersed. Add base to activator and stir thoroughly then add reducer. **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

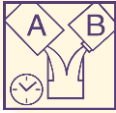


Viscosity: (21 - 25°C / 70 - 77°F)

- | | |
|----------|-----------------|
| • AFNOR4 | 17 - 24 seconds |
| • BSB3 | 32 - 46 seconds |
| • BSB4 | 18 - 25 seconds |
| • FORD4 | 15 - 21 seconds |
| • ISO4 | 27 - 43 seconds |
| • ZAHN2 | 20 - 28 seconds |

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

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Pot Life:

Reducer	Pot Life @ 21 - 25°C (70 - 77°F)
CA8000C	3 hours
CA8000C1	2 hours
CA8000C2	1.5 hours
CA8000C3	1 hour

Application Guidelines

Recommended Application Conditions:

Temperature	15 - 35°C (59 - 95°F)
Relative Humidity	20 - 90%

Application:

Apply 2 to 3 coats of CA8000 to a dry film thickness of 50 to 75 µm (2 to 3 mils). Apply a medium first coat with a maximum wet film thickness of 50 µm (2 mils). The first coat should be allowed to tack up before applying the second coat. Refer to drying table for recommended inter coat times. The second coat should be applied slightly thicker than the first coat with a maximum wet thickness of 62 µm (2.5 mils).

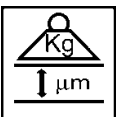


Theoretical Coverage: (ready for use)

9 - 10 m²/Lt @ 60 µm dry film thickness
 360 - 400 ft²/US gal @ 2.4 mil dry film thickness

Recommended Dry Film Thickness:

50 - 75 µm
 2 - 3 (mil)



Dry Film Density:

1.54 - 1.55 g/cm³
 12.9 - 12.94 lbs/US gal

Dry Film Weight:

93 g/m² @ 60 µm dry film thickness
 0.019 lbs/ft² @ 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.

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Equipment: CA8000 is compatible with most current forms of spray equipment



Equipment Type	Tip Size	Pot Pressure	Atomization Pressure at the cap
Electrostatic Air Spray	1.2 or 1.5 mm	16 to 20 psi (1.1 to 1.4 bars)	3.1 to 4.1 psi (45 to 60 bars)
Electrostatic Air Assisted Airless Spray	#611, #613, #711 or #713 (Graco Nomenclature)	700 to 1800 psi (48 to 124 bars)	40 to 50 psi (2.8 to 3.5 bars)
HVLP	1.0 to 1.4 mm	10 to 20 psi (0.69 to 1.4 bars)	10 psi maximum (0.69 bars)
Conventional Air Spray	1.2 to 1.8 mm	10 to 20 psi (0.69 to 1.4 bars)	45 to 60 psi (3.1 to 4.1 bars)

Note: Pressure may need to be optimised to suit local conditions

Equipment Cleaning:

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

Physical Properties



Colour:

Wide colour range available.



Gloss:

> = 90 units with a 60° gloss meter

Drying Times @ 23°C (73°F) 50 % R.H

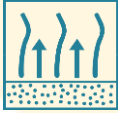


DRYING TIMES	CA8000C	CA8000C1	CA8000C2	CA8000C3
Inter-coat Time	1.5 to 2 hours	1 to 1.5 hours	30 to 45 minutes	15 to 30 minutes
Dust Free	4 hours	2 hours	1 hour	30 minutes
Dry to Tape	10 to 12 hours	6 to 8 hours	3 to 4 hours	1 to 2 hours
Dry to Overcoat	12 hours (min.) 72 hours (max.)	8 hours (min.) 72 hours (max.)	4 hours (min.) 48 hours (max.)	2 hours (min.) 24 hours (max.)
Full Cure	7 days	7 days	7 days	7 days
Dry to Tape @ 60°C (140°F)	60 minutes	30 minutes	30 minutes	15 minutes

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



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**Flash Off Time:**

30 minutes after application of final coat or when force drying.

**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
CA8000 Base Component	340-360 g/Lt
CA8000B Activator	110 g/Lt
CA8000C Series Reducers	720-760 g/Lt

**Flash Point:**

CA8000 Base Component	33°C (91°F)
CA8000B Activator	47°C (117°F)
CA8000C Series Reducers	22°C (72°F)

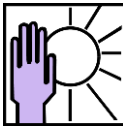
Shelf Life:

CA8000 Base Component	24 months in original unopened container
CA8000B Activator	24 months in original unopened container
CA8000C Series Reducers	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.



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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

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

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Issue Date: 06/18
Lit: 4298