PPG Aerospace
PRC-DeSoto

# 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
- AIMS 04-04-013
- AIMS 04-04-025
- AIMS 04-04-031
- AIMS 04-04-032
- AMS 3095
- BAMS 565-002
- BAMS 565-009
- BMS 10-60 T2
- BMS 10-72 T8
- BMS 10-125
- BS2X34B
- DHMS C4.04
- HMRC0155A
- 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.

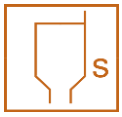
## Instructions for Use

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:** ( 23°C/73°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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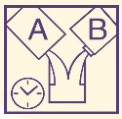



**Pot Life:**

| 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:**

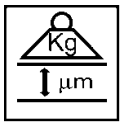
Apply 2 to 3 coats of CA8000 to a dry film thickness of 50 to 75 µm (2 to 3 mils). Apply a medium first coat with a maximum wet film thickness of 50 µm (2 mils). The first coat should be allowed to tack up before applying the second coat. Refer to drying table for recommended inter coat times. The second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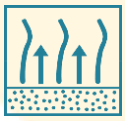

**Flash Off Time:**

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:**

## Asia Pacific

**ASC – Australia**
Tel 61 (3) 9335 1557
Fax 61 (3) 9335 3490

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Fax 81 561 35 5201

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PPG Aerospace
Sealants and Coatings
Darlington Road
Shildon, Co Durham UK
DL4 2QP
www.ppgaerospace.com
Issue Date: 02/16
Lit: 4298