

## Desothane<sup>®</sup> HD CA9005 Clear Topcoat

### Product description

Desothane<sup>®</sup> HD CA9005 polyurethane clearcoat is a buffable, highly durable, coating used to protect the exterior of the aircraft. This coating is used over Desothane<sup>®</sup> HS topcoats and Desothane<sup>®</sup> HD basecoats.

- Excellent appearance
- Improves gloss and image reflection
- Excellent gloss and color retention
- Excellent stain resistance
- Compatible with all current spray equipment
- Can be applied in a wide range of conditions
- Service temperature -54°C to 177°C (-65°F to 350°F)

### Components



#### Mix ratio (by volume):

- CA9005A (base component) 2 parts
- CA9005B (activator component) 1 part
- CA9005C (thinner component) 2 parts  
or CA9005CR (thinner component)

*Note: Desothane<sup>®</sup> retarder CA9005CR is designed for warm weather application.*

### Specifications



CA9005 topcoat is qualified to:

- AMS 3095
- BAMS 565-009
- BAMS 565-018
- MEP 10-125 Type I

*Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.*

#### Product compatibility:

CA9005 topcoat is compatible with the following topcoat specifications:

- AIMS 04-04-012
- AIMS 04-04-013
- AIMS 04-04-024
- AIMS 04-04-031
- AIMS 04-04-032
- AMS 3095
- BAMS 565-002
- DMS 2115
- DMS 2143 Type 1
- DPM 6456
- DPM 6546
- FEDEX STANDARD
- GAMPS 3209
- GP110AEE

# Desothane<sup>®</sup> HD CA9005 Clear Topcoat

- BAMS 565-009 Type II
- BMS 10-60 Type I & Type II
- BMS 10-72 Type VIII & Type IX
- BMS 10-125 Type III
- BMS 10-126 Type I
- CMFS037
- CMS-CT-101
- DHMS C4.04 Type VI
- MEP 10-069
- MIL-PRF-85285
- MM1276 Type I & Type II
- MS100029E Class HS
- RMS 430 Type II
- SMS-111207 Type 1
- VMS C4.04 Type VI

## Surface preparation and pretreatments



Desothane<sup>®</sup> HD CA9005 clearcoat can be applied over clean, dry, intact topcoats and basecoats. For further information, refer to the Technical Data Sheet for the mentioned products.

## Instructions for use



### **Mixing instructions:**

Prior to mixing, thoroughly stir the base component. Add the activator to the base and stir well, then add CA9005C or CA9005CR thinner while stirring. Maintain constant agitation for 10 minutes to ensure proper mixing.

*Note: It is important to condition the paint for 24 hours prior to mixing by placing all materials in the shop or hangar, with ambient temperatures between 13° and 35°C (55° to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.*



### **Induction time:**

Not required



### **Viscosity: (23°C/73°F)**

- |                         |                  |
|-------------------------|------------------|
| • #2 Signature Zahn cup | 14 to 20 seconds |
| • #4 Ford cup           | 12 to 15 seconds |
| • ISO 3mm cup           | 37 to 50 seconds |
| • ISO 4mm cup           | 18 to 22 seconds |
| • BSB3 cup              | 26 to 30 seconds |
| • BSB4 cup              | 15 to 17 seconds |
| • AFNOR #2.5 cup        | 45 to 56 seconds |
| • AFNOR #4 cup          | 15 to 16 seconds |

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

# Desothane<sup>®</sup> HD CA9005 Clear Topcoat



**Pot Life with CA9005C or CA9005CR Thinners:**

2 hours @ 21 - 25°C (70 - 77°F)

## Application guidelines

### **Recommended application conditions:**

Temperature	15 - 30°C (59 - 86°F)
Relative Humidity	20 - 90%

### **Application:**

Pigmented topcoat must achieve dry-to-tape prior to the application of the CA9005 clearcoat. Review the TDS of the pigmented topcoat for details on the minimum and maximum overcoat times. If the base color is out of its recoat window, scuff the entire surface to be cleared with an abrasive pad or lightly sand with 320 grit or finer sand paper. The surface needs to be sanded to the point that base color has no gloss. Remove dust and debris with a mild solvent or solvent blend, such as Desoclean™ 120 solvent cleaner. A urethane compatible tack rag may be used to remove dust on the surface. Do not use excessive pressure when using a urethane compatible tack rag. Tack rag residue can be left on the base color surface and cause craters or swirl marks. Never use a tack rag wet with solvent.

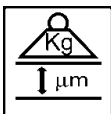
Ground the aircraft and the application equipment before clear coating. Stir the clearcoat slowly during the application. The suggested film thickness is 25 to 50 microns (1 to 2 mils). This can be accomplished with one or two medium coats with a 50% overlap. Note the first coat should be allowed to tack up before applying the second coat. If the second coat is applied before the last coat has tacked up, sagging may occur.

*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.*



### **Theoretical coverage:**

17 square meters/liter at 25 microns dry film (615 square feet/gallon at 1 mil dry film)  
Recommended dry film thickness; 25 to 50 microns (1.0 to 2.0 mils)



### **Dry film density**

1.0 grams/cubic centimeter (8.33 pounds/gallon)

### **Dry film weight:**

25 grams/square meter at 25 microns dry film (0.005 pounds/square feet at 1 mil dry film)

# Desothane® HD CA9005 Clear Topcoat



## Equipment:

CA9005 clearcoat is compatible with all current forms of spray equipment.

Equipment type	Tip size	Pot pressure	Atomization pressure at the cap
Electrostatic air spray gun	1.2 mm or 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)
Electrostatic air assisted airless spray gun	#611 or #613 (Graco Nomenclature)	700 to 1200 psi (48 to 82 bar)	40 to 60 psi (2.8 to 4.1 bar)
High Volume Low Pressure Spray Gun (HVLP)	1.0 mm to 1.4 mm	10 to 20 psi (0.69 to 1.4 bar)	10 psi maximum (0.69 bar)
Conventional air spray gun	1.2 mm to 1.8 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

## Equipment cleaning:

Clean spray equipment as soon as possible after use. Flush spray equipment with DeSoto® CN20, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner.

## Physical properties (product)



**Color:** BAC 900 Clear



**Gloss:** 90+ G.U at 60°



Dry times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Tack free	3 - 4 hours	2 - 3 hours	1 ½ - 2 ½ hours
Wet-edge	60 minutes	30 – 60 minutes	15 – 30 minutes
Time between coats	1 – 2 hours	45 – 60 minutes	30 – 60 minutes
Dry to tape	7 - 8 hours	5 - 7 hours	4 - 5 hours
Dry to fly	64 hours	48 hours	36 hours
Full cure	7 days	7 days	7 days

# Desothane<sup>®</sup> HD CA9005 Clear Topcoat

Accelerated cure for dry to handle:

Allow 30 minutes flash off at 24°C ± 3°C (75°F ± 10°F)  
followed by 60 minutes at 60°C (140°F)

## VOC

### VOC:

Mixed, ready for use VOC (EPA method 24)	420 grams/liter
Base Component	533 grams/liter
Activator Component	0 grams/liter
Thinner Component	
CA9005C	917 grams/liter
CA9005CR	877 grams/liter



### Flash point closed cup:

Base Component	29°C (85°F)
Activator Component	169°C (336°F)
Thinner Component	
CA9005C	-9°C (15°F)
CA9005CR	-9°C (15°F)

### Shelf life:

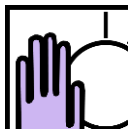
12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

24 months from date of manufacture for PRC-DeSoto Standard.

*Note: Shelf life is provided for original, unopened containers.*

*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<sup>®</sup> HD CA9005 Clear 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](http://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

#### **ASC – Japan**

Tel 81 561 35 5200  
Fax 81 561 35 5201

#### **ASC – South East Asia**

Tel 65 6861 1119  
Fax 65 6861 6162

#### **ASC – Suzhou**

Tel (86-512) 6661 5858  
Fax (86-512) 6661 6868

#### **ASC – Tianjin**

Tel (86-022) 2482 8625  
Fax (86-022) 2482 8600

### **Americas**

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

### **Europe and Middle East**

#### **ASC – Central Europe**

Tel 49 (40) 742 193 10  
Fax 49 (40) 742 139 69

#### **ASC – Middle East & India**

Tel (971) 4 883 9666  
Fax (971) 4 883 9665

#### **ASC – North Europe**

Tel 44 (0) 1388 770222  
Fax 44 (0) 1388 770288

#### **ASC – South Europe**

Tel 33 (0) 235 53 43 71  
Fax 33 (0) 235 53 54 44

**Desoclean, Desothane, and DeSoto are trademarks of PRC-DeSoto International, Inc.**

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

PRC-DeSoto International, Inc.  
12780 San Fernando Road  
Sylmar, CA 91342

[www.ppgaerospace.com](http://www.ppgaerospace.com)

Issue Date: 1/20  
Lit: 4182