



Desothane® HS CA9311 Advanced Performance Coating

TECHNICAL DATA SHEET

Product Description

Desothane® HS CA9311 advanced performance coating is a high solids, flouropolyurethane topcoat used to protect the exterior of aircraft. These topcoats are designed to be applied over epoxy and Koroflex® urethane primers to provide maximum protection.

- Outstanding gloss and color retention
- Exceptional appearance
- Excellent adhesion and fluid resistance
- Easy to clean
- Compatible with epoxy and urethane primers
- Compatible with all current spray equipment
- 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):

- CA9311/FXXXXX (base component) 3 parts
- CA9300B (activator component) 1 part

Note: Faster drying bases may be used, CA9312 or CA9313.

Specifications



CA9311 series topcoats are qualified to:

- BMS 10-145 Type I Grade D
- MEP 10-117 Type II
- MIL-PRF-85285 Type I & Type IV
- PWA 36525 Type 2

CA9311 meets the performance requirements of:

- DMS 2115
- MMS 420

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

Product Compatibility:

CA9311 series topcoats are compatible with the following primer specifications:

- DMS 1786
- MIL-P-53022
- MIL-PRF-23377
- MIL-PRF-85582
- MMS-423
- TT-P-2760



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Surface Preparation and Pretreatments



Desothane® CA9311 can be applied over clean, dry, intact surfaces. For further information, refer to the Technical Data Sheet for the above mentioned primers.

Instructions for Use



Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Add the activator to the base component and stir well, 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:

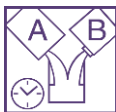
Not Required



Viscosity: (23°C/73°F)

- | | |
|----------------|--------------------|
| • #4 Ford cup | 30 seconds maximum |
| • BSB3 cup | 68 seconds maximum |
| • BSB4 cup | 35 seconds maximum |
| • AFNOR #4 cup | 33 seconds maximum |

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



Pot Life:

Whites and grays 4 hours @ 21 - 25°C (70 - 77°F)
All other colors 3 hours @ 21 - 25°C (70 - 77°F)

Application Guidelines

Recommended Application Conditions:

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



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Application:

Ground the aircraft and the application equipment before top coating. Stir the topcoat slowly during the application. The suggested film thickness is 50 to 75 microns (2 to 3 mils). This can be accomplished by 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 is applied before the first coat has tacked up, sagging may occur.

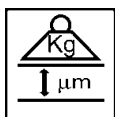
These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.



Theoretical Coverage:

20 square meters/liter at 25 microns dry film (850 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 50 to 75 microns (2 to 3 mils)



Dry Film Density:

1.64 grams/cubic centimeter (13.66 pounds/gallon)

Dry Film Weight:

41 grams/square meter at 25 microns dry film (0.0084 pounds/square feet at 1 mil dry film)



Equipment:

CA9311 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.



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Physical Properties (product)



Color: Available in FED STD 595B flat or any other flat color standard.



Gloss: 5 G.U at 60°



Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
CA9311 Base Component			
Wet Edge	40 - 55 minutes	30 - 45 minutes	15 - 20 minutes
Dry to Tape	8 hours	7 hours	6 hours
Dry Hard	14 hours	12 hours	10 hours
Dry to Fly	60 hours	48 hours	36 hours
Full Cure	7 days	7 days	7 days
CA9312 Base Component			
Wet Edge	20 - 30 minutes	15 - 20 minutes	10 - 15 minutes
Dry to Tape	4 - 5 hours	3 - 4 hours	2 - 3 hours
Dry Hard	8 hours	6 hours	4 hours
Dry to Fly	48 hours	36 hours	24 hours
Full Cure	7 days	7 days	7 days
CA9313 Base Component			
Wet Edge	15 - 20 minutes	10 - 15 minutes	5 - 10 minutes
Dry to Tape	3 - 4 hours	2 - 3 hours	1 - 2 hours
Dry Hard	6 hours	4 hours	2 hours
Dry to Fly	36 hours	24 hours	18 hours
Full Cure	7 days	7 days	7 days

Accelerated cure to dry hard when using CA9311 base component:

Allow 30 minutes flash off at 24°C ± 3°C (75°F ± 10°F)
followed by 90 minutes at 49°C (120°F)

Note: Accelerated cure can also be achieved by using faster drying base components.



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VOC:

Mixed, ready to use VOC (EPA method 24)	420 grams/liter
Base Component	490 grams/liter
Activator Component	206 grams/liter



Flash point closed cup:

Base Component	27°C (80°F)
Activator Component	39°C (102°F)

Shelf Life:

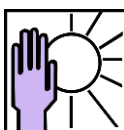
12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

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.



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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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ASC – Australia

Tel 61 (3) 9335 1557
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Issue Date: 9/15
Lit: 3054