Desothane™ HS CA9800 Military Advanced Performance Topcoat

Product description

Desothane™ HS CA9800 is high solids, military advanced performance topcoat. It is a buffable high gloss coating used to protect the exterior of aircraft.

- Compatible with Desoprime™ HS, Eco-prime, and Koroflex™ primers
- Excellent gloss and image reflection
- Low density for weight savings
- Exceptional gloss and color retention
- Excellent fluid resistance
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components

Mix ratio (by volume):

• CA9800/XXXXX (base component)	2 parts
• CA9800Z (activator component)	1 part
• CA9800CT1 (thinner component)	1 part

Note: XXXXX denotes color description. Standard thinner is 5-7 hours dry to tape. Optional faster drying thinners are also available, i.e. CA9800CT2, CA9800CT3, and CA9800CT4. A slower drying thinner is CA9800CT.

Specifications

CA9800 coating is qualified to:

- BMS 10-145 Type I Grade D
- MIL-PRF-85285 Type I & Type IV
- SMS 111207 Type 6

CA9800 coating passes the performance requirements of the following specifications:

- BMS 10-60 Type II
- BMS 10-72 Type VIII
- DMS 2115
- MMS 420

Note: PPG Aerospace recommends you check the most recent specification QPL's for updated information.

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Product compatibility:

CA9800 coatings are compatible with the following primer specifications:

- DMS 2104
- MIL-DTL-53022
- MIL-PRF-23377
- MIL-PRF-85582
- MMS-423
- RBO 125-014
- TT-P-2760

Surface preparation and pretreatments

CA9800 coatings can be applied over clean, dry, intact primed 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 one volume of CA9800Z buffable activator component to two volumes of base component and stir well. While mixing, add one volume of CA9800CT series flow control thinner component and maintain constant agitation for 10 minutes. CA9800CT flow control thinner component must be added to ensure adequate pot life and spray properties.

If additional thinning is required, compatible thinners are IS-213 (MIL-DTL-81772 Type I) and CA1800CX and CA1805CX. Add thinner as required, do not exceed 25% by volume. CA1800CX/CA1805CX are zero VOC compliant thinners in the U.S. per EPA method 24. If outside of the U.S., check your local environmental regulations. Some material specifications do not allow the use of additional thinner, verify the material specification or process document prior to using. Consult the IS-213 or CA1800CX/CA1805CX Technical Data Sheets and Safety Data Sheets for more details.

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

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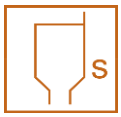

Viscosity: (23°C/73°F)

- #2 EZ Zahn cup 14 to 27 seconds
- #4 Ford cup 11 to 16 seconds

Note: If further viscosity reduction is desired, use CA1800CX or CA1805CX VOC compliant thinner, maximum 25% per mixed gallon.

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

Pot life

Thinners	68°F (20°C)	77°F (25°C)	87°F (30°C)	95°F (35°C)
CA8800CT	4 hours	3 hours	2.5 hours	2 hours
CA8800CT1	2.5 hours	2 hours	1.5 hours	1 hour
CA8800CT2	1.5 hours	1 hour	45 minutes	30 minutes
CA8800CT3	1 hour	45 minutes	30 minutes	20 minutes
CA8800CT4	45 minutes	30 minutes	20 minutes	15 minutes
CA8800CT5	30 minutes	20 minutes	15 minutes	12 minutes

Application guidelines

Recommended Application Conditions:

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

Application:
Ground the aircraft and the application equipment before topcoating. Stir the topcoat slowly during the application. The suggested film thickness is 50 to 75 microns (2.0 to 3.0 mils). This can be accomplished with 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 (825 square feet/gallon at 1 mil dry film)
Recommended dry film thickness; 50 to 75 microns (2.0 to 3.0 mils)

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Dry Film Weight:

35 grams/square meter at 25 microns dry film (0.00712 pounds/square feet at 1 mil dry film)

Equipment:

CA9800 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: Available in a variety of colors

Gloss: 90+ G.U at 60°

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Dry Times at Various Temperatures:

20°C (68°F)				
Thinners	**Dry to Tape**	**Wet Edge**	**Time Between Coats**	**Dry to Fly**
CA9800CT	9 - 12 hours	45 - 60 minutes	50 - 100 minutes	90 hours
CA9800CT1	7 - 10 hours	25 - 40 minutes	40 - 60 minutes	65 hours
CA9800CT2	4 - 5 hours	15 - 30 minutes	35 - 45 minutes	40 hours
CA9800CT3	3 - 4 hours	10 - 15 minutes	30 - 40 minutes	24 hours
CA9800CT4	2 - 3 hours	5 - 10 minutes	15 - 20 minutes	12 hours
25°C (77°F)				
Thinners	**Dry to Tape**	**Wet Edge**	**Time Between Coats**	**Dry to Fly**
CA9800CT	8 - 12 hours	30 - 45 minutes	45 - 60 minutes	72 hours
CA9800CT1	5 - 7 hours	15 - 30 minutes	30 - 45 minutes	48 hours
CA9800CT2	3 - 4 hours	10 - 15 minutes	20 - 30 minutes	24 hours
CA9800CT3	1 ½ - 2 ½ hours	8 - 12 minutes	15 - 20 minutes	12 hours
CA9800CT4	1 - 1 ½ hours	3 - 5 minutes	10 - 15 minutes	8 hours
30°C (87°F)				
Thinners	**Dry to Tape**	**Wet Edge**	**Time Between Coats**	**Dry to Fly**
CA9800CT	6 - 9 hours	25 - 40 minutes	40 - 55 minutes	55 hours
CA9800CT1	3 - 6 hours	10 - 25 minutes	25 - 35 minutes	30 hours
CA9800CT2	2 - 4 hours	8 - 15 minutes	15 - 25 minutes	18 hours
CA9800CT3	1 ½ - 3 hours	6 - 12 minutes	10 - 15 minutes	10 hours
CA9800CT4	45 - 60 minutes	5 - 10 minutes	8 - 12 minutes	6 hours
35°C (95°F)				
Thinners	**Dry to Tape**	**Wet Edge**	**Time Between Coats**	**Dry to Fly**
CA9800CT	5 - 8 hours	20 - 30 minutes	30 - 40 minutes	36 hours
CA9800CTR (Retarder)	5 - 8 hours	30 - 45 minutes	40 - 60 minutes	36 hours
CA9800CT1	3 - 5 hours	10 - 20 minutes	15 - 30 minutes	24 hours
CA9800CT2	2 - 3 hours	5 - 10 minutes	10 - 20 minutes	12 hours

Accelerated cure with CA9800CT for dry to tape:

Allow 30 minutes flash off at 24°C (75°F)
followed by 60 minutes at 49°C (120°F)

VOC

VOC:

Mixed, ready to use VOC (EPA method 24)	420 grams/liter
Base Component	338 grams/liter
Activator Component	116 grams/liter
Thinner Component	867 grams/liter

Flash point closed cup:

Base Component	29°C (84°F)
Activator Component	29°C (84°F)
Thinner Component	24°C (75°F)

VOHAP: 0.75 lbs./gallon

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 the 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 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.

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

ASC – Japan
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Fax 81 561 35 5201

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Fax 65 6861 6162

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Fax 44 (0) 1388 770288

ASC – South Europe
Tel 33 (0) 235 53 43 71
Fax 33 (0) 235 53 54 44

Americas

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

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

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