

Desothane[®] HS CA8020 Semi-Gloss Topcoat

TECHNICAL DATA SHEET

Product Description

Desothane[®] HS CA8020 semi-gloss topcoat is a high solids polyurethane used to protect the exterior of aircraft. CA8020 is designed to be applied over Desoprime[™] HS epoxy primers.

- Excellent adhesion to epoxy primers
- Good color retention
- Excellent fluid 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):

- CA8020 (base component) 2 parts
- CA8020DX (activator component) 1 part

Note: Desothane[®] HS CA8020 semi-gloss coating is available in faster dry time requirements: CA8021, CA8022, CA8023, and CA8024.

Specifications



CA8020 topcoat is qualified to:

- BAMS 565-002 Grade B
- BAMS 565-009 Grade B Type II

CA8020 topcoat meets the performance requirements to the following specifications:

- BMS 10-125 Type III Grade D
- CMS-CT-101 Type II
- DMS 2143 Type 1 Class 2 Composition C
- GP110AEE
- MM1276 Type II
- MS100029E Class HS

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

Product Compatibility:

CA8020 topcoat is compatible with the following primer specifications:

- BMS 10-72 VIII
- BMS 10-79
- DMS 2104
- DMS 2144

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Surface Preparation and Pretreatments



Desothane[®] HS semi-gloss topcoat CA8020 can be applied over clean, dry, intact primer surfaces. For further information, refer to the Technical Data Sheets for the above mentioned primers.

CA8020 high solids topcoats can be applied over clean, dry, intact urethane compatible epoxy primers listed above. Desothane[®] HS topcoats may be applied over the primer with no abrasion step if applied between 2 and 48 hours after priming. If it is longer, then abrade the primer surface with 320 grit red Scotch-Brite[™] and clean the surface with a mild solvent such as Desoclean[™] 110 solvent.

Instructions for Use



Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Add the activator to the base component and stir well. Then add the thinner component also under agitation. 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:

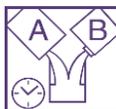
Not Required



Viscosity: (23°C/73°F)

- #4 Ford cup 30 seconds maximum

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



Pot Life:

Base	25°C (77°F)
CA8020	4 hours
CA8021	2 ½ hours
CA8022	1 ½ hours
CA8023	1 hour
CA8024	45 minutes

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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 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 with two medium coats with a 50% overlap. The first coat should be allowed to tack up before applying the second coat. If the first coat has not tacked up, sagging of the second coat may occur. If the first coat is dry to touch, a heavy orange peel may occur in the second coat.

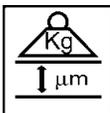
These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.



Theoretical Coverage:

20 square meters/liter at 25 microns dry film (775 to 875 square feet/gallon at 1 mil dry film)

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



Dry Film Density:

1.56 grams/cubic centimeter (13 pounds/gallon)

Dry Film Weight:

36 grams/square meter at 25 microns dry film (0.0075 pounds/square feet at 1 mil dry film)

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Equipment:

CA8020 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 40 psi (0.69 to 2.8 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 wide range of colors



Gloss: 15 - 45 G.U. at 60°



Dry Times at 25°C (77°F)

Base Component	Dry to Tape	Dry Hard	Dry to Fly
CA8020	8 - 12 hours	12 hours	72 hours
CA8021	5 - 10 hours	10 hours	48 hours
CA8022	3 - 4 hours	4 hours	24 hours
CA8023	1 ½ - 2 ½ hours	2 ½ hours	12 hours
CA8024	1 - 1 ½ hours	1 ½ hours	8 hours

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Accelerated cure for Dry Hard:

Allow 60 minutes flash off at 24°C ± 3°C (75°F ± 10°F)
followed by 4 hours at 49°C (120°F)

Full Cure 7 days

VOC

VOC:

Mixed, ready for use VOC (EPA method 24)	420 grams/liter Maximum
Base Component	448 grams/liter
Activator Component	358 grams/liter



Flash point closed cup:

Base Component	29°C (84°F)
Activator Component	27°C (80°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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