PPG Aerospace Coatings

Desothane® HS CA8100 Series Anti-Chafe Topcoat

TECHNICAL DATA SHEET

Product Description

Desothane® HS CA8100 anti-chafe topcoats are Teflon filled polyurethane coatings. CA8100 anti-chafe topcoats are primarily used on surfaces where low friction, abrasion resistance and impact resistance are required to reduce chafing and wear.

- Compatible with Desoprime™ HS primers
- Abrasion resistant
- Excellent durability and adhesion
- Compatible with all current spray equipment
- Excellent fluid resistance
- 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):

• CA810X/XXXXX (base component)	2 parts
• CA8100B (activator component)	1 part
• CA8100C (thinner component)	1 part

Note: CA8100 series anti-chafe topcoats come in two versions. CA8100 is standard dry and CA8101 is faster dry.

Specifications

CA8100 anti-chafe topcoats are qualified to:

- BAMS 565-005
- BMS 10-86 Type I, II, III
- GMS 4201
- MAT 365
- MEP 10-071
- MM1261
- MS100032E

CA8100 anti-chafe topcoats are listed on the following process standards:

- BAC 5710 Type 27
- PS 13555

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

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Product Compatibility:

CA8100 anti-chafe topcoats are compatible with the following primer specifications:

- 299-947-322 Type I
- AMS 3095
- BAMS 565-008 Grade A & B Type II
- BMS 10-72 Type VIII & IX Class NC
- BMS 10-79 Type II & III
- BMS 10-103 Type I Grade A
- BMS 10-118 Type I & II Grade B
- BMS 10-123 Type I Grade B
- CMS-CT-201 Class A & B Grade B
- CMS-CT-206 Type I Class A
- DHMS C4.01 Type 3 Grade A
- DHMS C4.18 Type III Class A Grade B
- GAMPS 3103
- GP110AEE
- HMS 16-1738
- HMS 16-2122
- MEP 10-060 Type I & II Class A & B
- MEP 10-068 Class A & B
- MEP 10-070
- MM1275 Type I & II
- MS100016E Class S
- PWA 36525 Type 1
- SMS-111204 Type 1 Class 1 Form 1
- SMS-111207 Type 7
- STMGK 189
- TCE-M-20710-14
- VMS C4.01 Type 3 Grade A
- VMS C4.18 Type 3 Class A Grade B

Surface Preparation and Pretreatments

CA8100 anti-chafe topcoats can be applied over clean, dry, intact epoxy primers or polyurethane topcoats. They may be applied over primer with no abrasion step if the primer was applied between 2 and 48 hours earlier, depending upon the primer. If it is longer than 48 hours, abrade the primer surface with a 325 grit Scotch-Brite™ pad and then clean with a solvent such as Desoclean™ 110 solvent. Likewise if going over aged polyurethane directly, abrade the surface with a 325 Scotch-Brite™ pad and clean with Desoclean™ 110 solvent cleaner.

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Instructions for Use

Mixing Instructions:

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

- #4 Ford cup — 20 seconds maximum
- BSB4 cup — 24 seconds maximum
- AFNOR #4 cup — 22 seconds maximum

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

Pot Life: 21 - 25°C (70 - 77°F)

Base Component	Time
CA8100	2 - 3 hours
CA8101 (BMS 10-86 Type II)	30 minutes

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Application Guidelines

Recommended Application Conditions:

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

Application:

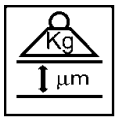
Ground the aircraft and the application equipment before top coating. Stir the topcoat slowly during the application. The suggested film thickness is 125 to 250 microns (5 to 10 mils). This can be accomplished by spraying three or four coats of anti-chafe coating. Note the previous coat should be allowed to tack up before applying the next coat. If rolling the anti-chafe coating, apply the next coat after the previous coat is tack free.

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:

22 square meters/liter at 25 microns dry film (890 square feet/gallon at 1 mil dry film).

Recommended dry film thickness; 120 to 250 microns (5 to 10 mils)



Dry Film Density:

1.36 grams/cubic centimeter (11.3 pounds/gallon)

Dry Film Weight:

34 grams/square meter at 25 microns dry film (0.007 pounds/square feet at 1 mil dry film)

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Equipment:

CA8100 anti-chafe topcoats are 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, CN44, or Desoclean™ 45 high performance solvent cleaner.

Note: These anti-chafe topcoats may also be applied with roller or brush.

Physical Properties (product)

Color: All Colors

Gloss: 70+ G.U at 60°

Dry Times for Dry Hard	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
CA8100 Base	6 hours	5 hours	4 hours
CA8101 Base (BMS 10-86 Type II)	4 hours	3 hours	2 ½ hours

Accelerated cure for dry hard:

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

Note: The cure of CA8100 topcoats is not affected by humidity.

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VOC:

Mixed, ready for use VOC (EPA method 24)	420 grams/liter
Base Component	
CA8100	289 grams/liter
CA8101	289 grams/liter
Activator Component	0 grams/liter
Thinner Component	862 grams/liter

Flash point closed cup:

Base Component	
CA8100	27°C (80°F)
CA8101	27°C (80°F)
Activator Component	238°C (460°F)
Thinner Component	24°C (75°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.

<u>Note:</u> 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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Issue Date: 11/16
Lit: 0562