Technical Data Sheet Aerospace Coatings



Desothane® HD CA9007/B900 Clearcoat

Product description

Desothane® HD CA9007/B900 polyurethane clearcoat is designed to provide excellent gloss, durability, buffability and stain resistance. CA9007/B900 can be used with CA9007 Basecoat as part of the Desothane® HD basecoat/clearcoat system (BCCC).

Benefits:

- Paint cycle time reduction
- Buffability
- 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)

Desothane® HD basecoat/clearcoat system (BCCC) provides excellent:

- Gloss and color retention
- Impact and rain erosion resistance
- Stain resistance
- Fluid resistance

Note: BCCC system should be used over a urethane compatible epoxy primer such as Desoprime™ series Chrome Free Primers CA7502, CA7502E, CA7502EW and Chromate Primers CA7700. and CA7755.

Components (mix ratio by volume)

Clearcoat thinner (65-75°F)

 CA9007/B900 (clearcoat base component) 	2 parts
 CA9007Z (clearcoat curing solution) 	1 part
 CA9007F (clearcoat thinner component) 	2 parts
learcoat thinner standard (75-85°F)	

Clearcoat thinner standard (75-85°F)

•	CA9007/B900 (clearcoat base component)	2 parts
•	CA9007Z (clearcoat curing solution)	1 part
•	CA9007FB (clearcoat thinner component)	2 parts

Clearcoat thinner hot weather (80-95°F)

•	CA9007/B900 (clearcoat base component)	2 parts
•	CA9007Z (clearcoat curing solution)	1 part
•	CA9007FR (clearcoat thinner component	2 parts

Clearcoat thinner cold weather (45-75°F)*

•	CA9007/B900 (clearcoat base component)	1 part
•	CA9007Z (clearcoat curing solution)	1 part
•	CA9007F5 (clearcoat thinner component)	1 part

*Note: Use of 9007F5 clearcoat is for small areas and spot repairs only. Pot life with CA9007F5 clearcoat thinner is 15 – 30 minutes.

Application of Sur-Prep ® AP-1 between basecoat and above clearcoat systems is optional, unless CA9007 basecoat is more than 72 hours old.

Specifications

CA9007/B900 clearcoat meets the performance requirements of the following specifications:

AMS 3095

BMS 10-72 Type X

CA9007/B900 clearcoat is listed on the following process documents:

BAC5075 Application of Aircraft Exterior Decorative Finishes

Product compatibility:

CA9007/B900 clearcoat is compatible with the following basecoats and singlestage topcoats:

- Desothane® HD CA9007 Basecoat
- Desothane® HD 9008 Basecoat
- Desothane® HS CA8000
- Desothane® HS CA8800

Surface preparation and pretreatments



CA9007/B900 Desothane® HD clearcoat can be applied over clean, dry, intact Desothane® HD basecoats CA9007 and 9008 or Desothane® HS single-stage topcoats CA8000 and CA8800. Consult technical data sheets of above coatings for overcoat windows. For further information, refer to "Components" section of this technical data sheet.

Instructions for use



Mixing instructions:

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.

Mix ratios vary based on product application. See "Components" section above for correct ratios for your selected application. Add correct volume of CA9007Z clearcoat curing solution to correct volume of CA9007/B900 clearcoat base component and stir well. Next add correct volume of CA9007 clearcoat thinner component while stirring. Maintain constant agitation for 5-10 minutes to ensure proper mixing.



Induction time:

Not Required



Viscosity: (23°C/73°F)

#2 Signature Zahn cup#4 Ford cup14 to 20 seconds10 to 16 seconds

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



Pot life: (Thinner and temperature dependent) Refer to table in physical properties section

Application guidelines

Recommended application conditions:

Temperature 7.2 - 35°C (45 - 95°F)

Relative Humidity 10 - 70%

Consult with your PPG sales representative to ensure selection of correct product variant for your conditions.

Application:

Ground the aircraft and the application equipment before applying the clear coat. The suggested film thickness is 25 to 50 microns (1 to 2 mils). This can be accomplished by 1 - 2 medium wet 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 can 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:

13.5 – 17.25 square meters/liter at 25 microns dry film (550 - 700 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 25 to 50 microns (1 to 2 mils)



Dry film density:

1.17 grams/cubic centimeter (9.8 pound/gallon)

Dry film weight:

30 grams/square meter at 25 microns dry film (0.006 pounds/square feet at 1 mil dry film)



Equipment:

CA9007/B900 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:

Clear



Gloss:

90+ G.U. at 60°



Dry Times:

<u>Thinner</u>	Mix Ratio	Dry to Tape 77°F/50%RH	Dry to Tape 85°F/50%RH	Pot Life
CA9007F	2:1:2	10-12 hours	-	2 hours
CA9007FB	2:1:2	15-17 hours	-	2 hours
CA9007FR	2:1:2	-	15-17 hours	2 hours
CA9007F5	1:1:1	1-2 hours		15-30 minutes



VOC:

Mixed, ready to use VOC (EPA method 24) 420 grams/liter Maximum

Base Component 557 grams/liter
Curing Solution 0 grams/liter

Thinner Component See applicable "Safety Data Sheet"



Flash point closed cup:

Base Component $28.8^{\circ}\text{C } (84^{\circ}\text{F})$ Curing Solution $169^{\circ}\text{C } (336.2^{\circ}\text{F})$ Thinner Component $-20^{\circ}\text{C } (-4^{\circ}\text{F})$

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.

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.

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 Fax 61 (3) 9335 3490

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