



# Desothane® CA8800 SR Solar Reflective Topcoats

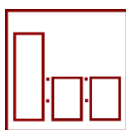
## TECHNICAL DATA SHEET

### Product Description

Desothane® CA8800 SR Solar Reflective Topcoats are buffable polyurethane coatings used to protect the exterior of aircraft and reduce solar heating of dark topcoats. These high solids topcoats are designed to be applied over Desoprime™ white epoxy primer and Desothane® HS polyurethane topcoat.

- CA8800 SR dark topcoats are designed to be transparent to near IR portion of solar radiation spectrum
- Reduces solar heating of dark topcoats on composite and aluminum based substrates
- Fuselage skin temperatures can be lowered by -4°C to -7°C (20°F to 25°F)
- Temperature reduction benefits achieved without compromise of other properties
- Requires use of highly IR reflective undercoat of Desoprime™ CA7502W white primer or Desothane® HS CA8800 white topcoat
- May be buffed to remove minor imperfections
- Excellent gloss and image reflection
- Retains gloss and color in harsh exterior environments
- Can be applied in a wide range of conditions
- Excellent impact and erosion resistance
- Skydrol® resistant
- Compatible with all current spray equipment
- Service temperature -54°C to 177°C (-65°F to 350°F)

### Components



#### **Mix ratio (by volume) for gloss colors:**

- |                                  |         |
|----------------------------------|---------|
| • CA8800SR/XXXX (base component) | 2 parts |
| • CA8800Z (activator component)  | 1 part  |
| • CA8800CT (thinner component)   | 1 part  |

*Note: Desothane® HS Buffable thinners are available in 6 types based on dry time requirements: CA8800CT, CA8800CTR, CA8800CT1, CA8800CT2, CA8800CT3, and CA8800CT4.*

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## Specifications



CA8800 SR series topcoats meet requirements of:

- AMS 3095
- BAMS 565-009
- BMS 10-60 Type II Class B Grade D
- BMS 10-72 Type VIII
- BMS 10-125 Type III Grade D
- BMS 10-126 Type I Grade D
- CMFS 037
- Dassault Falcon Jet
- DHMS C4.04
- GAMPS 3209
- MEP 10-069
- MM 1276
- Raytheon
- PAI 3760
- VMS C4.04

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

### **Product Compatibility:**

CA8800 SR topcoats are compatible with Desothane HS Polyurethane Topcoats and 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 A & 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
- STM GK 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



CA8800 SR high solids topcoats can be applied over clean, dry, intact urethane compatible epoxy primers such as CA7502W or CA7502EW, or polyurethane topcoats such as Desothane HS. The surface may be cleaned with DeSoto® CN20, DeSoto® CN44, or Desoclean™ 110 solvent cleaner. Observe over coating window for primers or polyurethane topcoats. For further information, refer to the Technical Data Sheets for the above mentioned primers and polyurethane topcoats.

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## Instructions for Use



### Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Add one volume of CA8800Z buffable activator component to two volumes of base component and stir well. While mixing, add one volume of CA8800CT series thinner component and maintain constant agitation for 10 minutes. CA8800CT series component must be added to ensure adequate pot life and spray properties.

*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:

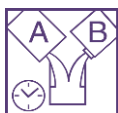
Not Required



### Viscosity: (23°C/73°F)

- |                         |                  |
|-------------------------|------------------|
| • #2 Signature Zahn cup | 18 to 22 seconds |
| • #4 Ford cup           | 14 to 17 seconds |
| • ISO 4mm cup           | 19 to 30 seconds |
| • BSB4 cup              | 17 to 22 seconds |
| • AFNOR #4 cup          | 16 to 18 seconds |

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



### Pot Life: 21 - 25°C (70 - 77°F)

Thinner	Time
CA8800CT	3 hours
CA8800CTR	3 hours
CA8800CT1	2 hours
CA8800CT2	1 hour
CA8800CT3	45 minutes
CA8800CT4	30 minutes



# Desothane® CA8800 SR Solar Reflective Topcoats

## Application Guidelines

### Recommended Application conditions:

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

### Application:

To obtain solar reflective properties, CA8800 SR topcoats must be applied over Desoprime™ CA7502W white epoxy primer or a white shade of Desothane® HS CA8800 polyurethane topcoat. CA7502W primer should be applied in one box coat to obtain a dry film thickness of 22.5 to 30 microns (0.9 to 1.2 mils). Consult the Desoprime™ CA7502W Technical Data Sheet for application details. When using a primer other than Desoprime™ CA7502W, apply an undercoat of Desothane® HS CA8800/B70846 or CA8800/I1050 to a dry film thickness of 37.5 to 50 microns (1.5 to 2.0 mils) to achieve the required color opacity. If applying Desothane® HS CA8800 in a shade of white other than those listed above, it may be necessary to apply to a dry film thickness of 50 to 75 microns (2.0 to 3.0 mils) to achieve the required color opacity. Consult the Desothane® CA8800 HS Technical Data Sheet for application details.

Ground the aircraft and the application equipment before top coating. Stir the topcoat slowly during the application. The suggested film thickness is 37.5 to 75 microns (1.5 to 3.0 mils). This can be accomplished by two or three 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. If the first coat is completely dry, a heavy orange peel could result.

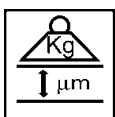
*These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.*



### 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 to 3 mils)



### Dry Film Density:

1.48 grams/cubic centimeter (12.32 pounds/gallon)

### Dry Film Weight:

37 grams/square meter at 25 microns dry film (0.0068 pounds/square feet at 1 mil dry film)

# Desothane® CA8800 SR Solar Reflective Topcoats



## Equipment:

CA8800 SR high solids 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, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner.

## Physical Properties (product)



**Color:** Various



**Gloss:** 90+ G.U. at 60°

# Desothane® CA8800 SR Solar Reflective Topcoats



## Dry Times at Various Temperatures:

### 20°C (68°F)

Thinners	Dry to Tape	Wet Edge	Time Between Coats	Dry to Fly
CA8800CT	9 - 12 hours	45 - 60 minutes	50 - 100 minutes	90 hours
CA8800CT1	7 - 10 hours	25 - 40 minutes	40 - 60 minutes	65 hours
CA8800CT2	4 - 5 hours	15 - 30 minutes	35 - 45 minutes	40 hours
CA8800CT3	3 - 4 hours	10 - 15 minutes	30 - 40 minutes	24 hours
CA8800CT4	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
CA8800CT	8 - 12 hours	30 - 45 minutes	45 - 60 minutes	72 hours
CA8800CT1	5 - 7 hours	15 - 30 minutes	30 - 45 minutes	48 hours
CA8800CT2	3 - 4 hours	10 - 15 minutes	20 - 30 minutes	24 hours
CA8800CT3	1 ½ - 2 ½ hours	8 - 12 minutes	15 - 20 minutes	12 hours
CA8800CT4	1 - 1 ½ hours	3 - 5 minutes	10 - 15 minutes	8 hours



## Desothane® CA8800 SR Solar Reflective Topcoats

30°C (87°F)				
Thinners	Dry to Tape	Wet Edge	Time Between Coats	Dry to Fly
CA8800CT	6 - 9 hours	25 - 40 minutes	40 - 55 minutes	55 hours
CA8800CT1	3 - 6 hours	10 - 25 minutes	25 - 35 minutes	30 hours
CA8800CT2	2 - 4 hours	8 - 15 minutes	15 - 25 minutes	18 hours
CA8800CT3	1 ½ - 3 hours	6 - 12 minutes	10 - 15 minutes	10 hours
CA8800CT4	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
CA8800CT	5 - 8 hours	20 - 30 minutes	30 - 40 minutes	36 hours
CA8800CTR (Retarder)	5 - 8 hours	30 - 45 minutes	40 - 60 minutes	36 hours
CA8800CT1	3 - 5 hours	10 - 20 minutes	15 - 30 minutes	24 hours
CA8800CT2	2 - 3 hours	5 - 10 minutes	10 - 20 minutes	12 hours

Accelerated cure:

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

*Note: The cure rate of CA8800 SR topcoats is not affected by humidity.*

### 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	
CA8800CT	867 grams/liter
CA8800CTR	801 grams/liter





## Desothane® CA8800 SR Solar Reflective Topcoats



### Flash point closed cup:

Base Component	29°C (84°F)
Activator Component	29°C (84°F)
Thinner Component	
CA8800CT	24°C (75°F)
CA8800CTR	43°C (110°F)

### Shelf Life

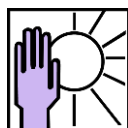
12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

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](http://www.ppgaerospace.com)**

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