# Technical Data Sheet Aerospace Coatings



# **Desoprime™ CF/CA7501 Chrome-Free Primer**

### **Product description**

Desoprime™ CF/CA7501 epoxy primer is a high solids non chromated epoxy coating used on aircraft non-metallic exterior substrates.

- Chromate free
- Compatible with Desothane® HS topcoats
- Passes the rain erosion test
- Excellent adhesion and Skydrol® 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):

CA7501A (base component)
CA7501B (activator component)
1 part
part

# **Specifications**



CA7501 primer is qualified to:

BMS 10-118 Type I & Type II

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

#### **Product compatibility:**

CA7501 is compatible with the following intermediate coatings:

• F565-4010

CA7501 is compatible with the following topcoats:

- AIMS 04-04-013
- BAMS 565-009
- BMS 10-60 Type I & Type II
- BMS 10-72 Type VIII
- BMS 10-125 Type III
- CMS-CT-101
- DMS 2115

- DMS 2143
- DPM 6456
- DPM 6546
- MEP 10-069
- MIL-PRF-85285
- MM1276

# Surface preparation and pretreatments



CA7501 chrome free epoxy primer is used over clean, dry, intact composite substrates.

### **Instructions for use**



#### Mixing instructions:

Prior to mixing, thoroughly shake the base component. CA7501B activator should be stirred by hand before mixing. Add activator to base component and stir well. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time may be required based on temperature.

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:

Temperature	13 - 18°C	18 - 23°C	24 - 29°C	>29°C
	(55 - 64°F)	(65 - 74°F)	(75 - 84°F)	(>85°F)
Induction time required	1 ½ hours	1 hour	30 minutes	None



#### Viscosity: (23°C/73°F)

•	#2 Signature Zahn cup	15 to 19 seconds
•	#4 Ford cup	11 to 15 seconds
•	ISO 3mm cup	36 to 50 seconds
•	ISO 4mm cup	17 to 22 seconds
•	BSB3 cup	25 to 30 seconds
•	BSB4 cup	14 to 17 seconds
•	AFNOR #2.5 cup	41 to 56 seconds
•	AFNOR #4 cup	14 to 16 seconds

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



#### Pot life:

5 hours @ 21 - 25°C (70 - 77°F) 3 hours @ >35°C (>95°F)

# **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 priming. Stir the primer slowly during the application. The suggested film thickness is 20 to 30 microns (0.6 to 1.2 mils). This can be accomplished with one medium coat with a 50% overlap.

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:

18 square meters/liter at 25 microns dry film (722 square feet/gallon at 1 mil dry film) Recommended dry film thickness; 20 to 30 microns (0.6 to 1.2 mils)



#### Dry film density:

1.76 grams/cubic centimeter (14.66 pounds/gallon)

#### Dry film weight:

44 grams/square meter at 25 microns dry film (0.009 pounds/square feet at 1 mil dry film)



#### **Equipment:**

CA7501 primer 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: Gray



Gloss: Not applicable



Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Dust free	1 - 1 ½ hours	½ - 1 hours	15 - 30 minutes
Tack free	2 - 3 hours	1 - 2 hours	30 - 60 minutes
Dry to tape	3 - 4 hours	2 - 3 hours	1 - 2 hours
Dry to topcoat	3 - 24 hours	2 - 24 hours	1 - 24 hours
Dry to fly	96 hours	72 hours	48 hours
Overcoat time with F565-4010	2 – 4 hours	2 – 4 hours	Not recommended
intermediate coat	2 1110010	2 4110013	recommended
		2 4110013	recommended
intermediate coat		2 - 72 hours 2 - 72 hours 2 - 72 hours 2 - 72 hours	2 - 72 hours 2 - 72 hours 2 - 72 hours 2 - 72 hours

#### Accelerated cure:

Allow 30 minutes flash off at  $24^{\circ}\text{C} \pm 5.6^{\circ}\text{C}$  (75°F  $\pm$  10°F) followed by 30 minutes at 49°C (120°F) for dry to topcoat



#### VOC (EPA method 24):

Mixed, ready to use VOC 350 grams/liter
Base Component 382 grams/liter
Activator Component 258 grams/liter



#### Flash point:

Base Component 16°C (60°F) Activator Component -4°C (24°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. 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

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