Technical Data Sheet Aerospace Coatings



Desoprime™ CF/CA7502E Chrome-Free Epoxy Primer

Product description

CA7502E is a chrome-free, epoxy primer designed for exterior aircraft application. CA7502E possesses corrosion resistance similar to chromated primers when applied over DesoGel™ EAP9, Bondedrite® 1200 or chromic acid anodize.

- Chrome-free, urethane compatible epoxy primer
- Urethane topcoat compatible
- Excellent durability, adhesion, water and fluid resistance
- Easy to apply in a variety of environmental conditions
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix ratio (by volume):

CA7502E (base component)
CA7502EB (activator component)
CA7502EC (thinner component)
Gallon kit yield
2 parts
1 part
2 ½ gallons

Note: CA1800CX, CA1805CX or T187 thinner may be added to improve spray characteristics and film appearance. See Mixing instructions section below for details.

Specifications



CA7502E is qualified to:

AMS 3095

CA7502E primer meets the performance requirements of:

BMS 10-72 Type VIII

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

Product compatibility:

CA7502E primer is compatible with the following topcoat specifications:

- AIMS 04-04-12
- AIMS 04-04-013
- AIMS 04-04-024
- AIMS 04-04-031
- AIMS 04-04-032
- AMS 3095
- BAMS 565-002 Class A Gr B
- BAMS 565-009 Type II Grade B
- BMS 10-60 Ty II CI B Gr D
- BMS 10-72 Type VIII
- BMS 10-125 Type III Grade D
- BMS 10-126 Type I Grade D
- CMFS037
- CMS-CT-101 Type I

- DHMS C4.04 Ty VI CI B Gr B
- DMS 2143 Ty 1 Cl 1 Comp C
- DPM 6456
- DPM 6546
- FEDEX STANDARD
- GAMPS 3209
- GP110AEE
- MEP 10-069
- MM1276 Type II
- MS100029E Class HS
- RMS 430 Type II
- SMS-111207 Type 1
- VMS C4.04 Ty VI CI B Grade B

Surface Preparation and Pretreatments



CA7502E can be applied over DesoGel™ EAP-9, MIL-DTL-81706, or chromic acid anodized aluminum.

Instructions for Use



Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Stir the activator by hand before mixing. Add activator to the base component and stir well, and then add CA7502EC thinner while stirring. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time may be needed based upon the ambient temperature.

Additional thinner may be added to improve spray characteristics and film appearance. Compatible thinners are CA1800CX, CA1805CX and T187 thinner.

For CA1800CX/CA1805CX thinners do not exceed 10% by volume (32 fl. oz. per 2 ½ gallons admixed). CA1800CX/CA1805CX are VOC compliant thinners in the U.S., zero VOC per EPA method 24. If outside of the U.S., check your local environmental regulations. Consult CA1800CX/CA1805CX Technical Data Sheets and Safety Data Sheets for more details.

The recommended addition level for T187 thinner is 350 ml (12 fl. oz.) per 2 ½ gallons admixed) Please note that at this addition level of T187 thinner, the mixed VOC will rise from 350 g/l to 370 g/l.

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 - 21°C	22 - 26°C	>27°C
	(55 - 70°F)	(71 - 80°F)	(>80°F)
Induction Time Required	30 minutes	15 minutes	None



Viscosity: (23°C/73°F)

#4 Ford cup 20 to 50 seconds

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



Pot Life:

2 hours @ 21 - 25°C (70 - 77°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. The suggested dry film thickness is 13 to 23 microns (0.5 to 0.9 mils). This can be accomplished with one medium coat with a 50% overlap. After applying primer, a close inspection is recommended to ensure a continuous coating was applied. The primer should appear translucent and should not be applied to full hide.

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 (708 square feet/gallon at 1 mil dry film) Recommended dry film thickness; 13 to 23 microns 0.5 to 0.9 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:

CA7502E 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, CN44, or Desoclean[™] 45 high performance solvent cleaner.

Physical Properties (product)



Color: Light Beige



Gloss: Not Applicable



Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	29-35°C (85-95°F)		
Dust Free	1 - 1 ½ hours	1 - 2 hours	15 - 30 minutes		
Dry to Tape	4 - 5 hours	3 - 4 hours	2 - 3 hours		
Dry to Fly	96 hours	72 hours	48 hours		
Full Cure	7 days	7 days	7 days		
Overcoat Time with					
CA8000					
CA8800	4 - 72 hours	3 - 72 hours	2 - 72 hours		
CA9008					
Overcoat Time with					
CA9000	5 - 72 hours	4 - 72 hours	3 - 48 hours		

Accelerated cure for dry to tape:

Allow 30 minutes flash off at 24°C ± 3°C (75°F ± 10°F) followed by 60 minutes at 49°C (120°F)



VOC:

Mixed, ready for use VOC (EPA method 24)

350 grams/liter

303 grams/liter

Activator Component

188 grams/liter

Thinner Component

779 grams/liter



Flash point closed cup:

Base Component $27^{\circ}\text{C (81°F)}$ Activator Component $39^{\circ}\text{C (102°F)}$ Thinner Component $-9^{\circ}\text{C (15°F)}$

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:

Asia Pacific

ASC – Australia Tel 61 (3) 9335 1557 Fax 61 (3) 9335 3490

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PRC-DeSoto International, Inc. 12780 San Fernando Road Sylmar, CA 91342

www.ppgaerospace.com

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