DeSoto® CA7850 Anti-Static Coating

TECHNICAL DATA SHEET

Product Description

DeSoto® CA7850 anti-static coating is a conventional solids, carbon filled, epoxy coating with controlled conductive properties.

- Excellent adhesion to plastic surfaces
- Excellent fluid resistance
- Can be applied in a wide range of conditions
- Resistivity is 0.1 to 1.0 megohms per square
- Used on radomes and antennas
- Compatible with Desothane® HS topcoats
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components

Mix ratio (by volume):

- CA7850 (base component)  1 part
- 910X464 (activator component)  1 part

Specifications

CA7850 primer is qualified to:

- CMFS033 Type IV

Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.
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Product Compatibility:
CA7850 is compatible with the following topcoat specifications:

- AIMS 04-04-012
- AIMS 04-04-013
- AIMS 04-04-024
- AIMS 04-04-031
- AIMS 04-04-032
- AIMS 04-04-036
- AMS 3095
- BAMS 565-002 Class A Grade B
- BAMS 565-009 Type II Class A Grade B
- BMS 10-60 Type I & II Class B Grade D
- BMS 10-72 Type VIII
- BMS 10-125
- BMS 10-126 Type I Grade D
- CMFS037
- CMS-CT-101 Type I
- D-12-003-01/SF-001
- DHMS C4.04 Type VI Class B Grade B
- DMS 2115 Type I
- DMS 2143 Type 1 Class 1 Composition C
- DPM 6456
- DPM 6546
- EMS 93123
- FEDEX STANDARD
- FMC 9661-01
- GAMPS 3209
- GC130N
- GP110AEE
- GP110AEF
- MEP 10-069
- MIL-PRF-85285 Type I & Type IV
- MM1276
- MMS 420
- MS100029E Class HS
- RMS 176
- RMS 430 Type II
- SMS-111207 Type 1
- VMS C4.04 Type VI Class B Grade B

Surface Preparation and Pretreatments

DeSoto® CA7850 anti-static coating can be applied over clean, dry and intact plastic and composite surfaces.

Instructions for Use

Mixing Instructions:
Prior to mixing, thoroughly shake the base component. Add the activator to the base component and stir well, 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°C and 35°C (55°F to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.
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Induction Time:
Not Required

Viscosity: (23°C/73°F)
- #1 Zahn cup 34 to 44 seconds
- #2 Zahn Cup 15 to 19 seconds
- #4 Ford Cup 12 to 15 seconds
- ISO 3 30 to 50 seconds
- ISO 4 17 to 22 seconds
- BSB3 24 to 30 seconds
- BSB4 14 to 17 seconds
- AFNOR #2.5 41 to 56 seconds
- AFNOR #4 14 to 16 seconds

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

Pot Life:
4 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. Stir the coating slowly during the application. The suggested film thickness is 17 to 25 microns (0.7 to 1.0 mils). This can be accomplished by 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:
6.3 square meters/liter at 25 microns dry film (255 square feet/gallon at 1 mil dry film)
Recommended dry film thickness; 17 to 25 microns (0.7 to 1.0 mils)
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Dry Film Density:
1.56 grams/cubic centimeter (13.0 pounds/gallon)

Dry Film Weight:
39 grams/square meter at 25 microns dry film (0.00778 pounds/square feet at 1 mil dry film)

Equipment:
CA7850 primer is compatible with all forms of current conventional and HVLP spray equipment.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Tip Size</th>
<th>Pot Pressure</th>
<th>Atomization Pressure at the Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Volume Low Pressure Spray Gun (HVLP)</td>
<td>1.0 mm to 1.4 mm</td>
<td>10 to 20 psi (0.69 to 1.4 bar)</td>
<td>10 psi maximum (0.69 bar)</td>
</tr>
<tr>
<td>Conventional Air Spray Gun</td>
<td>1.2 mm to 1.8 mm</td>
<td>10 to 20 psi (0.69 to 1.4 bar)</td>
<td>45 to 60 psi (3.1 to 4.1 bar)</td>
</tr>
</tbody>
</table>

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
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<table>
<thead>
<tr>
<th>Dry Times</th>
<th>13 - 21 °C (55 - 70 °F)</th>
<th>22 - 28 °C (71 - 84 °F)</th>
<th>&gt;29 °C (&gt;85 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust Free</td>
<td>25 minutes</td>
<td>15 minutes</td>
<td>10 minutes</td>
</tr>
<tr>
<td>Tack Free</td>
<td>2 ½ hours</td>
<td>2 hours</td>
<td>1 ½ hours</td>
</tr>
<tr>
<td>Dry Through</td>
<td>5 hours</td>
<td>4 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td>Dry to Overcoat</td>
<td>2 - 24 hours</td>
<td>2 - 24 hours</td>
<td>2 - 24 hours</td>
</tr>
<tr>
<td>Full Cure</td>
<td>7 days</td>
<td>7 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

Note: To overcoat after 24 hours, the anti-static coating needs to be scuffed and carefully cleaned before overcoating.

VOC (EPA method 24):

- Mixed, ready for use VOC: 700 grams/liter
- Base Component: 624 grams/liter
- Activator Component: 791 grams/liter

Flash point closed cup:

- Base Component: -6 °C (22 °F)
- Activator Component: -6 °C (22 °F)

Shelf Life:

- 12 months from date of manufacture for CMFS033 Type IV.
- 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.
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
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