Eco-Prime™ CF EWDY048 Water-Borne Military Epoxy Primer

TECHNICAL DATA SHEET

Product Description

Eco-Prime™ CF EWDY048 is a water-borne chrome free epoxy primer that is chemical and solvent resistant. This primer is designed to be applied to aluminum and composite surfaces prior to top coating.

- Compatible with Desothane® HS topcoats
- Used on a wide variety of military aircraft and weapon systems
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components

Mix ratio (by volume):
- EWDY048A (base component) 3 parts
- EWDY048B (activator component) 1 part

Specifications

EWDY048 epoxy primer is qualified to:
- AWMS 28-002 Type I Class 1 Grade B
- MIL-PRF-85582 Type I Class N

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

Product Compatibility:
EWDY048 primer is compatible with the following topcoat specifications:
- DMS 2115
- MIL-C-46168
- MIL-PRF-22750
- MIL-PRF-85285
- MIL-PRF-22750
- MMS 420

Surface Preparation and Pretreatments

Eco-Prime™ EWDY048 primer can be applied over clean, dry, intact aluminum and composite surfaces. Aluminum surfaces shall be treated with materials conforming to MIL-C-5541 or equivalent.
Instructions for Use

Mixing Instructions:
Prior to mixing, thoroughly shake the base component. Add the activator component 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° 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 35 to 46 seconds
- #4 Ford cup 25 to 40 seconds
- ISO 4mm cup 56 to 82 seconds
- BSB3 cup 58 to 78 seconds
- BSB4 cup 30 to 40 seconds
- AFNOR #4 cup 30 to 37 seconds

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

Pot Life:
4 hours @ 21 - 25°C (70 - 77°F)
Eco-Prime™ CF EWDY048 Water-Borne Military Epoxy Primer

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 15 to 23 microns (0.5 to 0.9 mils). This can be accomplished with one medium coats 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:
12 square meters/liter at 25 microns dry film (489 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 15 to 23 microns (0.5 to 0.9 mils)

Dry Film Density:
1.44 grams/cubic centimeter (12 pounds/gallon)

Dry Film Weight:
36 grams/square meter at 25 microns dry film (0.00744 pounds/square feet at 1 mil dry film)
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**Equipment:**
EWDY048 primer is compatible with all current forms of non-electrostatic 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>

**Cleaning Equipment:**
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:** Yellow
- **Gloss:** Not Applicable

<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>Tack Free</td>
<td>1 ½ hours</td>
<td>1 hour</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Dry to Stack</td>
<td>5 hours</td>
<td>4 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td>Dry to Overcoat</td>
<td>5 - 24 hours</td>
<td>4 - 24 hours</td>
<td>3 - 24 hours</td>
</tr>
<tr>
<td>Dry Hard</td>
<td>8 hours</td>
<td>6 hours</td>
<td>4 hours</td>
</tr>
<tr>
<td>Full Cure</td>
<td>14 days</td>
<td>14 days</td>
<td>14 days</td>
</tr>
</tbody>
</table>

Accelerated cure for dry to overcoat:
Allow 15 minutes flash off at 24°C ± 3°C (75°F ± 10°F) followed by 60 minutes at 60°C (140°F)
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VOC:

Mixed, ready for use VOC (EPA method 24) 334 grams/liter
Base Component 229 grams/liter
Activator Component 647 grams/liter

Flash point closed cup:

Base Component 110°C (230°F)
Activator Component 113°C (235°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 the 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  
Fax 61 (3) 9335 3490

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Tel 81 561 35 5200  
Fax 81 561 35 5201

ASC – South East Asia  
Tel 65 6861 1119  
Fax 65 6861 6162

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Fax (86-512) 6661 6868

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Fax (971) 4 883 9665

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Fax 44 (0) 1388 770288

ASC – South Europe  
Tel 33 (0) 235 53 43 71  
Fax 33 (0) 235 53 54 44

**Americas**

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