DeSoto® 515X349 Exterior Primer

TECHNICAL DATA SHEET

Product Description

DeSoto® 515X349 exterior primer is a conventional solids urethane compatible epoxy coating. This primer was formulated to protect aluminum and composite substrates from corrosion.

- Compatible with Desothane® HS topcoats
- Excellent adhesion to aluminum and composite surfaces
- Can be applied with all current non-electrostatic spray equipment
- Improved Skydrol® resistance
- Can be applied in a wide range of conditions
- Difficult to remove with chemical strippers
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components

Mix ratio (by volume):

- 515X349 (base component) 1 part
- 910X533 (activator component) 1 part

Specifications

515X349 primer is qualified to:

- BMS 10-79 Type III Class A Grade A
- DHMS C4.04 Type 6 Class B Grade A
- DHMS C4.18 Type III Class A Grade A
- DMS 2144 Composition A
- MS37.14.03
- SMS 111204 Type I
- STM0791
- STMGK 189
- STM-P-K104
- VMS C4.18 Type III

Note: PPG Aerospace recommends you check the most recent specification QPLs for updated information.
DeSoto® 515X349 Exterior Primer

Product Compatibility:
515X349 primer is compatible with the following topcoat specifications:

- AMS 3095
- BAC 5312
- BAMS 565-002 Class A Grade B
- BAMS 565-009 Type II Class Grade B
- 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
- CMFS037
- CMS-CT-101 Type I
- D6-1816
- DHMS C4.04 Type VI Class B Grade B
- DMS 2143 Type 1 Class 1 Composition 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 Type VI Class B Grade B
- D6-1816
- DHMS C4.04 Type VI Class B Grade B
- VMS C4.04 Type VI Class B Grade B

Surface Preparation and Pretreatments
515X349 primer can be applied over, MIL-C-5541, or chromic acid anodized aluminum.

Instructions for Use

Mixing Instructions:
Prior to mixing, thoroughly shake the base component. Add activator to base component and stir well. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time is 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:

<table>
<thead>
<tr>
<th>Temperature</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>Induction Time Required</td>
<td>30 minutes</td>
<td>30 minutes</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>
DeSoto® 515X349 Exterior Primer

**Viscosity:** (21 - 25°C / 70 - 77°F)

- #1 Signature Zahn cup: 30 to 40 seconds
- #2 Signature Zahn cup: 16 to 20 seconds
- #4 Ford cup: 12 to 15 seconds
- ISO 3mm cup: 37 to 50 seconds
- ISO 4mm cup: 18 to 22 seconds
- BSB3 cup: 26 to 30 seconds
- BSB4 cup: 15 to 17 seconds
- AFNOR #2.5 cup: 45 to 56 seconds
- AFNOR #4 cup: 14 to 16 seconds

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

**Pot Life:**
8 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 primer slowly during the application. The suggested film thickness is 12.5 to 22.5 microns (0.5 to 0.9 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:**

9.5 square meters/liter at 25 microns dry film (375 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 12.5 to 22.5 microns (0.5 to 0.9 mils)

**Dry Film Density:**

1.8 grams/cubic centimeter (15.0 pounds/gallon)

**Dry Film Weight:**

45.0 grams/square meter at 25 microns dry film (0.0095 pounds/square feet at 1 mil dry film)
DeSoto® 515X349 Exterior Primer

Equipment:
515X349 primer is compatible with all current 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>

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: Dark Green

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>45 minutes</td>
<td>30 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Dry to Tape</td>
<td>3 hours</td>
<td>2 hours</td>
<td>1 ½ hours</td>
</tr>
<tr>
<td>Dry to Topcoat</td>
<td>3 - 72 hours</td>
<td>2 - 72 hours</td>
<td>1 ½ - 72 hours</td>
</tr>
<tr>
<td>Dry to Fly</td>
<td>72 hours</td>
<td>48 hours</td>
<td>36 hours</td>
</tr>
<tr>
<td>Full Cure</td>
<td>7 days</td>
<td>7 days</td>
<td>7 days</td>
</tr>
</tbody>
</table>

Accelerated cure:
Allow 15 minutes flash off at 24°C ± 3°C (75°F ± 10°F) followed by 30 minutes at 60°C (140°F)
DeSoto® 515X349 Exterior Primer

**VOC:**

<table>
<thead>
<tr>
<th>Component</th>
<th>VOC (EPA method 24)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed, ready for use VOC</td>
<td>650 grams/liter</td>
<td></td>
</tr>
<tr>
<td>Base Component</td>
<td>514 grams/liter</td>
<td></td>
</tr>
<tr>
<td>Activator Component</td>
<td>804 grams/liter</td>
<td></td>
</tr>
</tbody>
</table>

**Flash point closed cup:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Flash point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Component</td>
<td>1°C (31°F)</td>
</tr>
<tr>
<td>Activator Component</td>
<td>7°C (45°F)</td>
</tr>
</tbody>
</table>

**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.*
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

ASC – Japan
Tel 81 561 35 5200  
Fax 81 561 35 5201

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

ASC – Suzhou
Tel (86-512) 6661 5858  
Fax (86-512) 6661 6868

ASC – Tianjin
Tel (86-022) 2482 8625  
Fax (86-022) 2482 8600

**Europe and Middle East**

ASC – Central Europe
Tel 49 (40) 742 193 10  
Fax 49 (40) 742 139 69

ASC – Middle East & India
Tel (971) 4 883 9666  
Fax (971) 4 883 9665

ASC – North Europe
Tel 44 (0) 1388 770222  
Fax 44 (0) 1388 770288

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

**Americas**

1 (818) 362-6711 or 1-800-AEROMIX

Desoclean, Desothane, DeSoto, and Skydrol are trademarks of PRC-DeSoto International, Inc.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller’s and manufacturer’s sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

DeSoto® 515X349 Exterior Primer

Desoclean, Desothane, DeSoto, and Skydrol are trademarks of PRC-DeSoto International, Inc.

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller’s and manufacturer’s sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.