



DeSoto® 515X346 Epoxy Polyamide Corrosion Preventative Bonding Primer

0TECHNICAL DATA SHEET

Product Description

DeSoto® 515X346 is a flexible, high tensile strength epoxy bonding primer designed for use with paste or high tack, room temperature curing adhesives. It offers protection of the adhesive bond from corrosion while maintaining adequate shear and peel strength.

- Excellent adhesion and corrosion resistance
- Excellent fluid resistance
- Compatible with all non-electrostatic spray equipment
- Can be applied in a wide range of conditions
- Compatible with room temperature adhesives
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix ratio (by volume):

- | | |
|---------------------------------|---------|
| • 515X346 (base component) | 4 parts |
| • 910X520 (activator component) | 1 part |
| • 020-702 (thinner component) | 4 parts |

Specifications

515X346 primer is qualified to:

- | | |
|----------------|--------------|
| • MAP-CC 10185 | • STMK 1144 |
| • MSFC-3615 | • STMK 719-2 |
| • PWA-SP 1138 | • STM0876 |

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

515X346 primer is listed on:

- | | |
|---------------------|------------|
| • BAC 5010 Type 102 | • DPM 8951 |
| • BAC 5710 Type 60 | |

Note: PPG Aerospace recommends you check the most recent Process Standard for updated information.

Product Compatibility:

515X346 primer is compatible with the following topcoat specifications:

- | | |
|------------------------------|-----------------------|
| • BMS 10-60 Type I & Type II | • BMS 10-72 Type VIII |
|------------------------------|-----------------------|



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Surface Preparation and Pretreatments



DeSoto® 515X346 epoxy polyamide bonding primer can be applied over clean, properly prepared 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 to the base component and stir well, and then add thinner under agitation. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time is required.

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 (55 - 70°F) | 22 - 28°C (71 - 84°F) | >29°C (>85°F) |
|-------------------------|--------------------------|--------------------------|------------------|
| Induction Time Required | 1 ½ hour | 1 hour | 30 minutes |



Viscosity: (23°C/73°F)

- | | |
|-------------------------|------------------|
| • #2 Signature Zahn cup | 16 to 20 seconds |
| • #4 Ford cup | 10 to 15 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 | 15 to 17 seconds |

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



Pot Life:

8 hours @ 21 - 25°C (70 - 77°F)



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Application Guidelines

Recommended Application Conditions:

Temperature 15 - 30°C (59 - 86°F)
Relative Humidity 20 - 90%

Application:

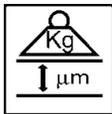
Ground the aircraft and the application equipment before priming. Stir the primer slowly during the application. The suggested film thickness is 20 to 30 microns (0.8 to 1.2 mils). This can be accomplished with one medium coat with a 50% overlap.

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:

9.1 square meters/liter at 25 microns dry film (375 square feet/gallon at 1 mil dry film)
Recommended dry film thickness; 20 to 30 microns (0.8 to 1.2 mils)



Dry Film Density:

1.6 grams/cubic centimeter (13.33 pounds/gallon)

Dry Film Weight:

40.0 grams/square meter at 25 microns dry film (0.00817 pounds/square feet at 1 mil dry film)



Equipment:

515X346 is compatible with all non-electrostatic spray equipment.

| Equipment Type | Tip Size | Pot Pressure | Atomization Pressure at the Cap |
|---|------------------|--------------------------------|---------------------------------|
| 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.

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Physical Properties (product)



Color: Green



Gloss: Not Applicable



| Dry Times | 13 - 21°C (55 - 70°F) | 22 - 28°C (71 - 84°F) | >29°C (>85°F) |
|-----------|-----------------------|-----------------------|---------------|
| Tack Free | 3 hours | 2 hours | 1 ½ hours |
| Dry Hard | 18 hours | 16 hours | 14 hours |
| Full Cure | 7 days | 7 days | 7 days |

Accelerated cure:

For Dry Hard

Allow 1 hour flash off at 24°C ± 3°C (75°F ± 10°F)
followed by 30 minutes at 49°C (140-160°F)

For Full Cure

Allow 1 hour flash off at 24°C ± 3°C (75°F ± 10°F)
followed by 16 - 24 hours at 49°C (140-160°F)



VOC:

| | |
|---|-----------------|
| Mixed, ready to use VOC (EPA method 24) | 650 grams/liter |
| Base Component | 507 grams/liter |
| Activator Component | 532 grams/liter |
| Thinner Component | 832 grams/liter |



Flash point closed cup:

| | |
|---------------------|-------------|
| Base Component | 23°C (74°F) |
| Activator Component | 7°C (45°F) |
| Thinner Component | -1°C (32°F) |



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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: The coating 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.



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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:

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ASC – Australia

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