

DeSoto® 513X377 Exterior Epoxy Primer

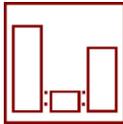
TECHNICAL DATA SHEET

Product Description

DeSoto® 513X377 Exterior Epoxy Primer is a urethane compatible primer used to protect aluminum and composite substrates from corrosion.

- Compatible with Desothane® HS topcoats
- Can be used with all current spray equipment including electrostatic
- Excellent adhesion to aluminum and composite substrates
- Excellent Skydrol® resistance
- Can be applied in a wide range of conditions
- Is easily removed with chemical paint strippers
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix ratio (by volume):

- | | |
|---------------------------------|---------|
| • 513X377 (base component) | 4 parts |
| • 910X482 (activator component) | 1 part |
| • 020X364 (thinner component) | 3 parts |

Specifications



513X377 primer is qualified to:

- | | |
|-------------------------------------|----------------------------------|
| • BAMS 565-008 Grade A Type II | • I.C.TO-37.03 |
| • BMS 10-79 Type II Class B Grade A | • MEP 10-060 Type I & II Class B |
| • CMS-CT-201 Class A & B Grade A | • SMS 111204 Type I Class 1 |
| • GP110AEE | Form 1 |

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

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Product Compatibility:

513X377 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

Surface Preparation and Pretreatments



513X377 primer can be applied over DesoGel™ EAP-9, DesoGel™ EAP-12, MIL-C-5541, or chromic acid anodized aluminum.

Instructions for Use



Mixing Instructions:

Prior to mixing, thoroughly shake the base component. Add the activator to the base component and stir well. Then add the thinner under agitation. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time may be 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:

Temperature	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Induction Time Required	1 hour	30 minutes	None



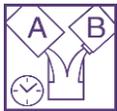
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Viscosity: (23°C/73°F)

- | | |
|-------------------------|------------------|
| • #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:

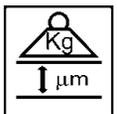
Ground the aircraft and the application equipment before priming. Stir the primer slowly during the application. The suggested film thickness is 15 to 23 microns (0.6 to 0.9 mils). This can be accomplished with one medium coat with a 50% overlap.

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 square meters/liter at 25 microns dry film (355 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:

1.72 grams/cubic centimeter (14.33 pounds/gallon)

Dry Film Weight:

43.0 grams/square meter at 25 microns dry film (0.0086 pounds/square feet at 1 mil dry film)

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Equipment:

DeSoto® 513X377 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, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner.

Physical Properties (product)



Color: Yellow



Gloss: Not Applicable



Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Tack Free	45 minutes	30 minutes	20 minutes
Dry to Tape	3 hours	2 hours	1 ½ hours
Dry to Topcoat	3 - 72 hours	2 - 72 hours	1 ½ - 72 hours
Dry to Fly	72 hours	48 hours	36 hours
Full Cure	7 days	7 days	7 days

Accelerated cure for dry to handle:

Allow 15 minutes flash off at 24°C ± 3°C (75°F ± 10°F) followed by 30 minutes at 60°C (140°F)



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VOC:

Mixed, ready to use VOC (EPA method 24)	685 grams/liter
Base Component	690 grams/liter
Activator Component	597 grams/liter
Thinner Component	893 grams/liter



Flash point closed cup:

Base Component	17°C (62°F)
Activator Component	16°C (60°F)
Thinner component	-1°C (31°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: 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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