



# DeSoto® 513X384 Exterior Primer

## TECHNICAL DATA SHEET

### Product Description

DeSoto® 513X384 exterior conventional solids, urethane compatible epoxy primer. This primer is used to protect aluminum and composite substrates from corrosion.

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

### Components



#### Mix ratio (by volume):

- 513X384 (base component) 1 part
- 910X456 (activator component) 1 part

### Specifications



513X384 primer is qualified to:

- 13085176
- 299-947-322 Type I
- BMS 10-79 Type II Class A Grade A
- HMS 16-1738
- HMS 16-2122
- MEP 10-060 Type I & II Class A
- STMGK 189

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

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## Product Compatibility:

513X384 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



513X384 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, 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

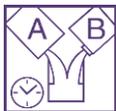
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**Viscosity:** (23°C/73°F)

- #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:**

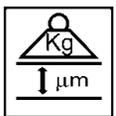
Ground the aircraft and the application equipment before priming. Stir the primer slowly during the application. The suggested film thickness is 15 to 23 microns (0.6 to 0.9 mils). This can be accomplished with one medium coat with a 50% overlap.

*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 (348 square feet/gallon at 1 mil dry film)  
Recommended dry film thickness; 15 to 23 microns (0.6 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® 513X384 primer is compatible with all current forms of non-electrostatic spray equipment.

Equipment Type	Tip Size	Pot Pressure	Atomization Pressure at the Cap
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 to 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) for dry to topcoat

# DeSoto<sup>®</sup> 513X384 Exterior Primer



**VOC:**

Mixed, ready to use VOC (EPA method 24)	650 grams/liter
Base Component	547 grams/liter
Activator Component	0 grams/liter



**Flash point closed cup:**

Base Component	-6°C (22°F)
Activator Component	16°C (60°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](http://www.ppgaerospace.com)**

**For sales and ordering information call the local PPG office at the numbers listed below:**

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