

# DeSoto<sup>®</sup> 513X408B Military Water-Borne Primer

## TECHNICAL DATA SHEET

### Product Description

DeSoto<sup>®</sup> 513X408B military water-borne primer 513X408B is a VOC compliant, chemical and solvent resistant epoxy coating. This primer is designed to protect aluminum and composite surfaces from corrosion.

- Easy to mix and apply
- Compatible with Desothane<sup>®</sup> HS topcoats
- Excellent adhesion and corrosion resistance
- Fluid resistant
- Can be applied in a wide range of conditions
- Can be sprayed with all current non-electrostatic equipment
- Easy to strip with chemical strippers or dry media blasting
- Service temperature -54°C to 177°C (-65°F to 350°F)

### Components



#### Mix ratio (by volume):

- 513X408B (base component) 3 parts
- 910X831 (activator component) 1 part

### Specifications



513X408B primer is qualified to:

- 400-73743
- MIL-PRF-85582 Type I Class C2

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

#### **Product Compatibility:**

513X408B primer is compatible with the following topcoat specifications:

- DMS 2115
- MIL-PRF-85285
- MIL-PRF-22750
- MMS 420

### Surface Preparation and Pretreatments



The surface must be thoroughly clean and free of oil, dust, etc. Aluminum alloy shall be treated with material conforming to MIL-C-5541 or equivalent.

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## 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.

*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:

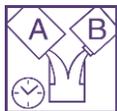
Not Required



### Viscosity: (23°C/73°F)

- |                         |                    |
|-------------------------|--------------------|
| • #2 Signature Zahn cup | 35 seconds maximum |
| • #4 Ford cup           | 25 seconds maximum |
| • BSB3 cup              | 58 seconds maximum |
| • BSB4 cup              | 31 seconds maximum |
| • AFNOR #4 cup          | 33 seconds maximum |

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



### Pot Life:

4 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 20 to 30 microns (0.8 to 1.2 mils). This can be accomplished in 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.*

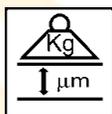
## DeSoto® 513X408B Military Water-Borne Primer



### Theoretical Coverage:

13 square meters/liter at 25 microns dry film (525 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:

1.60 grams/cubic centimeter (13.33 pounds/gallon)

### Dry Film Weight:

40 grams/square meter at 25 microns dry film (0.00911 pounds/square feet at 1 mil dry film)



### Equipment:

513X408B primer is compatible with conventional and HVLP 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.

## Physical Properties (product)



**Color:** Yellow-Green



**Gloss:** Not Applicable

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Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Tack Free	2 hours	1 hour	30 minutes
Dry to Overcoat	4 - 24 hours	4 - 24 hours	4 - 24 hours
Dry to Stack	6 hours	5 hours	4 hours
Dry Hard	6 hours	6 hours	6 hours
Full Cure	14 days	14 days	14 days

Accelerated cure for dry to handle:

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



### VOC:

Mixed, ready to use VOC (EPA method 24)	340 grams/liter
Base Component	133 grams/liter
Activator Component	576 grams/liter



### Flash point closed cup:

Base Component	93°C (200°F)
Activator Component	99°C (210°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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