



TECHNICAL DATA

DeSoto® Conventional Exterior Primers

Description

DeSoto® conventional exterior primers are chemically cured, conventional solids, urethane compatible epoxy primers. These high performance primers are formulated to protect non-ferrous substrates from filiform and exfoliation corrosion. DeSoto® conventional exterior primers have excellent adhesion to a variety of substrates and exhibit a high degree of fluid and chemical resistance. These primers have been used successfully on a wide variety of aircraft throughout the world.

DeSoto® conventional exterior primers are compatible with all current spray equipment (except for 513X384 and 515X349, which cannot be electrostatic sprayed) and are easy to apply. DeSoto® conventional exterior primers can be removed with chemical paint strippers. For further details on the application parameters for these primers, consult the application guide for DeSoto® conventional exterior primers or contact your local PPG Aerospace Application Support Center.

DeSoto® conventional exterior primers are qualified to the following specifications:

513X384

- BMS 10-79 Type II Class A Grade A
- BPS 299-947-322
- HMS 16-1738
- MEP 10-060

513X377

- BAMS 565-008 Type II Class A Grade A
- BMS 10-79 Type II Class B Grade A
- I.C. TO-37.03
- MEP 10-060

515X349

- BMS 10-79 Type III Class A Grade A
- DHMS C4.18 Type III Class A Grade A
- DMS 2144 Composition A
- STMO 791

DeSoto® conventional exterior primers are compatible with the following topcoats:

- BAMS 565-009
- BMS 10-60 Type I & II
- BMS 10-72 Type VIII
- DMS 2143
- DPM 6456
- DPM 6546
- MEP 10-069

Application Properties (Typical)

Application temperature	65°F - 95°F (18.3°C to 35°C)
Application humidity	15% - 65%
Mix ratio (by volume)	
513X384 (Base)	1 part
910X456 (Activator)	1 part
513X377 (Base)	4 parts
910X482 (Activator)	1 part
020X364 (Thinner)	3 parts
515X349 (Base)	1 part
910X533 (Activator)	1 part
Viscosity	
Initial (#1 Zahn cup)	30 to 40 sec.
Potlife (8 hours)	30 to 40 sec.
VOC, EPA method 24 650 grams/l	
513X384	650 grams/l
513X377	685 grams/l
515X349	650 grams/l
Dry film density	
513X384 0.0086 lbs/ft² @ 1.0 mil dry film	
513X377 0.0086 lbs/ft² @ 1.0 mil dry film	
515X349 0.0095 lbs/ft² @ 1.0 mil dry film	
Theoretical coverage	
513X384 348 ft²/gal @ 1.0 mil dry film	
513X377 355 ft²/gal @ 1.0 mil dry film	
515X349 375 ft²/gal @ 1.0 mil dry film	
Recommended dry film thickness 0.5 to 0.9 mils (12.5 - 22.5 microns)	
Drying times @ 75°F (23.9°C)	
Tack free	30 min. max.
Dry to tape	2 hours
Dry to topcoat	2 to 72 hours
Dry to fly	48 hours
Full cure	7 days
Accelerated cure	
15 minutes flash off @ 75°F (23.9°C), then 30 minutes at 140°F (60°C)	
Color	
513X384/513X377	Yellow
515X349	Green
Spray equipment	
Compatible with all forms of spray equipment (except for BMS 10-79 Type II & III Class A)	
Shelf life	
12 months from date of manufacture	

DeSoto® Conventional Exterior Primers

Performance Properties (Typical)

Service temperature -65°F to 350°F (54°C to 176.7°C)	Conforms
Flexibility 180° Conical Mandrel	Conforms
Low temperature flexibility 4 inch (100 mm) Mandrel @ -65°F (-54°C)	Conforms
Impact resistance 40 inch/lbs (46 cm/kg), Gardner	Conforms
Film hardness H pencil minimum	Conforms
Fluid resistance Skydrol® (LD-4), 30 days @ 75°F (23.9°C)	Conforms
Distilled H ₂ O, 7 days @ 75°F (23.9°C)	Conforms
Corrosion (with BMS 10-60 or DMS 2143 topcoats) Salt spray Passes 3000 hours	Conforms
Filiform Passes 30 days @ 100°F (37.8°C) and 85% RH	Conforms
Dissimilar metals 5% salt spray for 2000 hours	Conforms
Rain erosion Whirling arm	Conforms

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 Life

Inspect the condition of the container to ensure compliance to FED-STD-141, Method 3011.1. The material should be stored at temperatures between 40°F to 115°F (4.4°C to 46.1°C) to ensure shelf life.

Health Precautions

This product is safe to use and apply when recommended precautions are followed. Before using this product, read and understand the Material Safety Data Sheet (MSDS), which provides information on health, physical and environmental hazards, handling precautions and first aid recommendations. An MSDS 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
1-800-AEROMIX (237-6649).

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