

# DeSoto® 825-009 High Temperature Urethane Primer

## TECHNICAL DATA SHEET

### Product Description

DeSoto® 825-009 High Temperature urethane primer is a heat resistant coating that can withstand an operating temperature of 232°C (450°F). 825-009 is used over aluminum and composite surfaces.

- Excellent adhesion to composites and aluminum
- Corrosion resistance
- Can be used by itself or topcoated
- Excellent fluid resistance
- Service temperature -54°C to 232°C (-65°F to 450°F)

### Components



#### Mix ratio (by volume):

- |                                 |         |
|---------------------------------|---------|
| • 825-009 (base component)      | 4 parts |
| • 910-175 (activator component) | 1 part  |
| • 020-044 (thinner component)   | 4 parts |

### Specifications



825-009 primer is qualified to:

- |                 |                      |
|-----------------|----------------------|
| • AIMS 04-04-21 | • CMS-CT-122         |
| • BAMS 565-013  | • SMS-111207 Type IV |

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

825-009 primer is listed on:

- |                    |            |
|--------------------|------------|
| • BAC 5710 Type 51 | • DPM 5893 |
| • RPS 13.84        |            |

*Note: PPG Aerospace recommends you check the most recent process standard for updated information.*

#### **Product Compatibility:**

825-009 is compatible with the following epoxy topcoat process standard:

- BAC 5710 Type 53

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## Surface Preparation and Pretreatments



825-009 primer/coating can be applied over clean, dry, intact 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 activator component to the base component and stir well. Add the thinner component while stirring. Maintain constant agitation for 10 minutes to ensure proper mixing. Induction time may be 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:

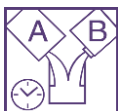
Temperature	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Induction Time Required	1 hour	30 minutes	None



### Viscosity: (23°C/73°F)

- |                         |                  |
|-------------------------|------------------|
| • #2 Signature Zahn cup | 15 to 22 seconds |
| • #4 Ford cup           | 10 to 17 seconds |
| • ISO 4mm cup           | 18 to 30 seconds |
| • BSB3 cup              | 26 to 34 seconds |
| • BSB4 cup              | 14 to 20 seconds |
| • AFNOR #4 cup          | 14 to 18 seconds |

*Note: Viscosities quoted are 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 25 to 50 microns (1.0 to 2.0 mils). This can be accomplished by one or two medium coats with a 50% overlap. Note the first coat should be allowed to tack up before applying the second coat. If the second is applied before the first coat has tacked up, sagging can occur.

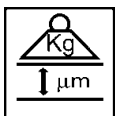
825-009 can be topcoated with 529K002 high temperature epoxy topcoat.

*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:

9.8 square meters/liter at 25 microns dry film (399 square feet/gallon at 1 mil dry film)  
Recommended dry film thickness; 25 to 50 microns (1.0 to 2.0 mils)



### Dry Film Density:

1.84 grams/cubic centimeter (15.33 pounds/gallon)

### Dry Film Weight:

46 grams/square meter at 25 microns dry film (0.00936 pounds/square feet at 1 mil dry film)



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## Equipment:

825-009 primer 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.

## Physical Properties (product)



**Color:** Aluminized Green



**Gloss:** Not Applicable



Dry Times	13 - 21°C (55 - 70°F)	22 - 28°C (71 - 84°F)	>29°C (>85°F)
Time Between Coats	45 minutes	30 minutes	20 minutes
Dry to Stack	5 hours	4 hours	3 hours
Dry to Overcoat	8 - 24 hours	6 - 24 hours	4 - 24 hours
Full Cure	14 days	14 days	14 days

## Accelerated cure:

Allow 30 minutes flash off at 24°C ± 3°C (75°F ± 10°F)  
followed by 90 - 120 minutes at 121°C (250°F) for dry to topcoat

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## VOC

### VOC:

Mixed, ready to use VOC (EPA method 24)	612 grams/liter
Base Component	510 grams/liter
Activator Component	118 grams/liter
Thinner Component	910 grams/liter



### Flash point closed cup:

Base component	-6°C (22°F)
Activator Component	-6°C (22°F)
Thinner Component	-1°C (31°F)

### Shelf Life:

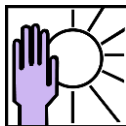
12 months from date of manufacture to most OEM material specifications. Consult the specification to verify shelf life requirements.

24 months from date of manufacture for PRC-DeSoto Standard.

*Note: 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)**

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