

# DeSoto<sup>®</sup> HS 535K020 Fluid Resistant Primer

## TECHNICAL DATA SHEET

### Product Description

DeSoto<sup>®</sup> HS 535K020 fluid resistant primer is a high solids epoxy primer formulated to provide excellent fluid and corrosion resistance

- Compatible with Desothane<sup>®</sup> HS polyurethane topcoats and Koropon<sup>®</sup> HS epoxy topcoats
- Excellent adhesion and corrosion resistance
- Excellent fluid resistance
- Can be applied with all current spray equipment
- Service temperature -54 °C to 177 °C (-65 °F to 350 °F)

### Components



#### Mix ratio (by volume):

- |                                 |         |
|---------------------------------|---------|
| • 535K020 (base component)      | 2 parts |
| • 930K097 (activator component) | 1 part  |

### Specifications



535K020 primer is qualified to:

- |                            |                                   |
|----------------------------|-----------------------------------|
| • EMS 53181 Type I Class A | • MCS 9010 Type I Class 2 Grade 2 |
| • HMS 15-1100 Type 1       |                                   |

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

#### Product Compatibility:

535K020 primer is compatible with the following topcoat specifications:

- |                                 |                                   |
|---------------------------------|-----------------------------------|
| • CMS-CT-203 Type I Class 3     | • MCS 9010 Type X Class 1 Grade 2 |
| • DMS 2115 Composition C Type I | • MIL-PRF-85285                   |
| • DMS 2433 Type 1 Composition C | • MS 100014E Class HS             |
| • EMS 53181 Type II Class C     | • ZMS 2433 Type 1 Composition C   |
| • GMS 5006 Type I               |                                   |
| • HMS 15-1100 Type II Class 2   |                                   |

### Surface Preparation and Pretreatments



DeSoto<sup>®</sup> 535K020 fluid resistant primer 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.



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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. Induction time is needed.

*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:

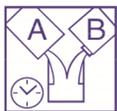
Temperature	13 - 21 °C (55 - 70 °F)	22 - 28 °C (71 - 84 °F)	>29 °C (>85 °F)
Induction Time Required	30 minutes	20 minutes	10 minutes



### Viscosity: (23 °C/73 °F)

- #2 Signature Zahn cup 15 to 35 seconds
- #4 Ford cup 10 to 25 seconds
- ISO 4mm cup 17 to 58 seconds
- BSB3 cup 26 to 58 seconds
- BSB4 cup 14 to 31 seconds
- AFNOR #4 cup 14 to 31 seconds

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



### Pot Life:

3 hours @ 21 - 25 °C (70 - 77 °F)

## Application Guidelines

### Recommended Application conditions:

Temperature	15 - 30 °C (59 - 86 °F)
Relative Humidity	20 - 90%



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## 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 by one coat with a 50% overlap.

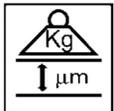
*These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.*



## Theoretical Coverage:

23 square meters/liter at 25 microns dry film (953 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:

1.76 grams/cubic centimeter (14.66 pounds/gallon)

## Dry Film Weight:

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



## Equipment:

535K020 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<sup>®</sup> CN20, DeSoto<sup>®</sup> CN44, or Desoclean<sup>™</sup> 45 high performance solvent cleaner.

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## Physical Properties (product)



**Color:** Semi-Gloss version of FED STD 595C #34151 Green



**Gloss:** Not Applicable



<b>Dry Times</b>	<b>13 - 21 °C (55 - 70 °F)</b>	<b>22 - 28 °C (71 - 84 °F)</b>	<b>&gt;29 °C (&gt;85 °F)</b>
Dust Free	45 minutes	30 minutes	20 minutes
Tack Free	3 hours	2 hours	1 1/2 hours
Dry Through	7 hours	6 hours	5 hours
Full Cure	7 days	7 days	7 days

Accelerated cure for dry through:

Allow 60 minutes flash off at 24 °C ± 3 °C (75 °F ± 10 °F)  
followed by 30 minutes at 65.5 °C (150 °F)



### **VOC (EPA method 24):**

Mixed, ready for use VOC	350 grams/liter
Base Component	288 grams/liter
Activator Component	441 grams/liter



### **Flash point:**

Base Component	39 °C (102 °F)
Activator Component	6 °C (42 °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.*



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*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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