



Desoprime™ HS 533K004 Military Epoxy Polyamide Primer

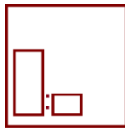
TECHNICAL DATA SHEET

Product Description

Desoprime™ HS 533K004 military epoxy primer is a high solids chemical and solvent resistant coating. This primer is used to protect aluminum and composite surfaces from corrosion.

- Compatible with Desothane® HS topcoats
- Used on a wide variety of military aircraft and weapon systems
- Compatible with all current spray equipment
- Excellent adhesion
- Excellent fluid resistance
- Can be applied in a wide range of conditions
- Easily removed with chemical strippers or dry media blasting
- Service temperature -54°C to 177°C (-65°F to 350°F)

Components



Mix ratio (by volume):

- 533K004 (base component) 3 parts
- 930K034 (activator component) 1 part

Specifications



533K004 primer is qualified to:

- DMS 2104 Type I Composition B and C

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

Product Compatibility:

533K004 primers are compatible with the following topcoat specifications:

- BMS 10-60 Type I & Type II
- DMS 2115 Composition C
- DPM 6338 Composition C
- MIL-PRF-85285 Type I & Type IV
- MMS 420

Surface Preparation and Pretreatments



Desoprime™ HS 533K004 epoxy polyamide 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 component 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° to 35°C (55° to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.



Induction Time:

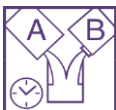
Not Required



Viscosity: (23°C/73°F)

- | | |
|-------------------------|------------------|
| • #2 Signature Zahn cup | 20 to 26 seconds |
| • #4 Ford cup | 15 to 20 seconds |
| • ISO 4mm cup | 22 to 40 seconds |
| • BSB3 cup | 30 to 42 seconds |
| • BSB4 cup | 17 to 24 seconds |
| • AFNOR #4 cup | 16 to 22 seconds |

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



Pot Life:

2 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 with one medium coat with a 50% overlap.



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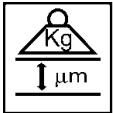
These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.



Theoretical Coverage:

23 square meters/liter at 25 microns dry film (935 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:

1.76 grams/cubic centimeter (14.66 pound/gallon)

Dry Film Weight:

44 grams/square meter at 25 microns dry film (0.0090 pounds/square feet at 1 mil dry film)



Equipment:

533K004 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® CN20, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner.

Physical Properties (product)



Color: Yellow



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) |
|----------------|-----------------------|-----------------------|---------------|
| Dust Free | 45 minutes | 30 minutes | 15 minutes |
| Tack Free | 6 hours | 5 hours | 4 hours |
| Dry Through | 10 hours | 8 hours | 6 hours |
| Dry to Topcoat | 6 - 24 hours | 5 - 24 hours | 4 - 24 hours |
| Full Cure | 14 days | 14 days | 14 days |

Accelerated cure for dry through:

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 for use VOC (EPA method 24) | 340 grams/liter |
| Base Component | 387 grams/liter |
| Activator Component | 255 grams/liter |



Flash point closed cup:

| | |
|---------------------|-------------|
| Base Component | 10°C (49°F) |
| Activator Component | 4°C (39°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

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

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ASC – Australia
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