DeSoto® 529K002 High Temperature Epoxy Topcoat

TECHNICAL DATA SHEET

Product Description

DeSoto® 529K002 high temperature epoxy topcoat can withstand an operating temperature of up to 204°C (400°F). It is used over high temperature coatings such as 519X303 and 825-009.

- Excellent adhesion to high temperature epoxy and polyurethane primers
- Excellent fluid resistance
- Excellent appearance
- Service temperature -54°C to 204°C (-65°F to 400°F)

Components

Mix ratio (by volume):
- 529K002 (base component) 1 part
- 910K021 (activator component) 1 part

Specifications

529K002 topcoat is qualified to:
- AIMS 04-04-21
- BAC 5710 Type 53
- CPW 269
- EMS 93284 Class A
- HS 4675
- PWA 569

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

Product Compatibility:

529K002 topcoat can be used over the following primer specifications:

- 299-947-167
- 642AS0844
- AIMS 04-04-021
- BAC 5710 Type 51
- CPW 268
- CPW 269
- EMS 93284
- HS 14569
- HS 4675
- KMB-YW0002
- MEP 10-090
- MM1256
- MMS 425 Revision B
- MMS 436
- PAI 3751-21-1
- PAI 3751-21-2
- PCS5409
- PS 13375
- PWA 568
- PWA 569
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Surface Preparation and Pretreatments

529K002 topcoat can be applied over clean, dry, intact high temperature epoxy and urethane primers.

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° 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 15 to 22 seconds
- #4 Ford cup 10 to 17 seconds
- ISO 3mm cup 35 to 64 seconds
- ISO 4mm cup 17 to 30 seconds
- BSB3 cup 24 to 34 seconds
- BSB4 cup 16 to 20 seconds
- AFNOR #2.5 cup 41 to 66 seconds
- AFNOR #4 cup 14 to 18 seconds

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

Pot Life:
8 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 topcoating. Stir the topcoat 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 may occur.

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:
8.5 square meters/liter at 25 microns dry film (350 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:
1.24 grams/cubic centimeter (10.33 pounds/gallon)

Dry Film Weight:
31 grams/square meter at 25 microns dry film (0.0063 pounds/square feet at 1 mil dry film)

Equipment:
529K002 primer is compatible with all non-electrostatic spray equipment.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Tip Size</th>
<th>Pot Pressure</th>
<th>Atomization Pressure at the Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Volume Low Pressure Spray Gun (HVLP)</td>
<td>1.0 mm to 1.4 mm</td>
<td>10 to 20 psi (0.69 to 1.4 bar)</td>
<td>10 psi maximum (0.69 bar)</td>
</tr>
<tr>
<td>Conventional Air Spray Gun</td>
<td>1.2 mm to 1.8 mm</td>
<td>10 to 20 psi (0.69 to 1.4 bar)</td>
<td>45 to 60 psi (3.1 to 4.1 bar)</td>
</tr>
</tbody>
</table>

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.
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Physical Properties (product)

| Color:         | Aluminized |
|               |           |
| Gloss:        | 60+ G.U at 60° |

<table>
<thead>
<tr>
<th>Dry Times</th>
<th>13 - 21 °C (55 - 70 °F)</th>
<th>22 - 28 °C (71 - 84 °F)</th>
<th>&gt;29 °C (&gt;85 °F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Between Coats</td>
<td>45 minutes</td>
<td>30 minutes</td>
<td>20 minutes</td>
</tr>
<tr>
<td>Dry to Stack</td>
<td>5 hours</td>
<td>4 hours</td>
<td>3 hours</td>
</tr>
<tr>
<td>Dry to Overcoat</td>
<td>8 - 24 hours</td>
<td>6 - 24 hours</td>
<td>4 - 24 hours</td>
</tr>
<tr>
<td>Full Cure</td>
<td>14 days</td>
<td>14 days</td>
<td>14 days</td>
</tr>
</tbody>
</table>

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

VOC (EPA method 24):
Mixed, ready for use VOC 667 grams/liter
Base Component 525 grams/liter
Activator Component 807 grams/liter

Flash point closed cup:
Base component -5 °C (23 °F)
Activator Component 7 °C (45 °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

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

**Asia Pacific**

ASC – Australia
Tel 61 (3) 9335 1557
Fax 61 (3) 9335 3490

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Tel 81 561 35 5200
Fax 81 561 35 5201

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Fax 65 6861 6162

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Fax (86-512) 6661 6868

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Fax 33 (0) 235 53 54 44

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