02GN058 Structural Primer

TECHNICAL DATA SHEET

Product Description

02GN058 structural primer is a fluid resistant, conventional solids, two-component epoxy polyamide primer formulated to protect the structural interior of aircraft from corrosion.

- Corrosion inhibiting
- Compatible with epoxy and urethane interior topcoats
- Chemical and solvent resistant
- Resistant to hydraulic fluids, lubricating oils, phosphate ester based hydraulic fluids, Skydrol® hydraulic fluid and distilled water

Components

Mix ratio (by volume):
- 020GN058 (base component) 1 part
- 020GN058CAT (catalyst component) 1 part

Specifications

02GN058 is qualified to:
- BMS 10-11 Type I Class A Grade A
- RMS 118 Type I Class G

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

Product Compatibility:

02GN058 is compatible with the following topcoat specifications:
- BAMS 565-002
- BMS 10-11 Type II
- BMS 10-60 Type I
- DMS 2143
- DPM 5391

Surface Preparation and Pretreatments

02GN058 structural 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.
02GN058 Structural Primer

Instructions for Use

Mixing Instructions:
Stir or shake the base component to ensure any pigment, which may have settled on the bottom of the can, has been fully incorporated into the base. Do not stir or shake the base component longer than 5 minutes. Slowly add one part by volume of catalyst to one part by volume base component. Mix by hand stirring, paint shaker or mechanical mixing to ensure the base/catalyst mixture is homogeneous. Do not shake or mechanically mix material for longer than 10 minutes. Constant agitation of the material during spray application is recommended.

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°C 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:

<table>
<thead>
<tr>
<th>Temperature</th>
<th>21 - 27°C (70 - 80°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induction Time Required</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

Viscosity: (23°C/73°F)
- #2 Signature Zahn cup 18 ± 2 seconds

Note: Viscosity quoted are the typical values 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:

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 square meters/liter at 25 microns dry film (331 square feet/gallon at 1 mil dry film)
Recommended dry film thickness; 12 to 17 microns (0.5 to 0.7 mils)

Dry Film Density:

1.96 grams/cubic centimeter (16.35 pounds/gallon)

Dry Film Weight:

49 grams/square meter at 25 microns dry film (0.0101 pounds/square feet at 1 mil dry film)

Equipment:

02GN058 is compatible with all current forms of 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>Electrostatic Air Spray Gun</td>
<td>1.2 mm or 1.5 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>
<tr>
<td>Electrostatic Air Assisted Airless Spray Gun</td>
<td>#611 or #613 (Graco Nomenclature)</td>
<td>700 to 1200 psi (48 to 82 bar)</td>
<td>40 to 60 psi (2.8 to 4.1 bar)</td>
</tr>
<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>
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Equipment Cleaning:
Clean spray equipment as soon as possible after use. Flush spray equipment with IS-237, DeSoto® CN20, DeSoto® CN44, or Desoclean™ 45 high performance solvent cleaner. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment.

Physical Properties (product)

<table>
<thead>
<tr>
<th>Color</th>
<th>Boeing Green BAC 452</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gloss</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>

Table: Dry Times

<table>
<thead>
<tr>
<th>Dry Times</th>
<th>21 - 27°C (70 - 80°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tack Free</td>
<td>2 hours maximum</td>
</tr>
<tr>
<td>Dry Hard</td>
<td>4 hours maximum</td>
</tr>
<tr>
<td>Dry to Topcoat</td>
<td>5 hours maximum</td>
</tr>
<tr>
<td>Full Cure</td>
<td>7 days maximum</td>
</tr>
</tbody>
</table>

Note: Dry times above were established at room (ambient) temperatures, 75° ± 5°F and 50% ± 10% relative humidity.

Forced Dry Schedule: For dry to stack conditions only. Allow a minimum of 30 minutes flash off time at ambient temperatures prior to exposing painted parts to high temperatures. Complete testing should be done prior to use. Below are suggested starting points. Other variables may affect these cure schedules.

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>49°C (120°F)</td>
<td>45 minutes</td>
</tr>
<tr>
<td>60°C (140°F)</td>
<td>30 minutes</td>
</tr>
<tr>
<td>71°C (160°F)</td>
<td>20 minutes</td>
</tr>
<tr>
<td>82°C (180°F)</td>
<td>15 minutes</td>
</tr>
</tbody>
</table>

Note: Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% relative humidity.
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**VOC:**
Mixed, ready to use VOC (EPA method 24) 643 grams/liter  
Base Component 499 grams/liter  
Catalyst Component 786 grams/liter

**Flash Point closed cup:**
Base Component -5°C (23°F)  
Catalyst Component -5°C (23°F)

**Shelf Life:**
12 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.*
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
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Fax 81 561 35 5201

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Fax 44 (0) 1388 770288

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