N59111 Polyurethane Anti-Static Coating Type I

TECHNICAL DATA SHEET

Product Description

N59111 is a two pack polyurethane coating, designed to enable the discharge of static electricity from a variety of surfaces.

- Conventional solids
- Excellent flexibility
- High conductivity, low resistivity (≤ 50KΩ)
- For general use - NOT suitable for use on radomes or antennae

Components

<table>
<thead>
<tr>
<th>MIX RATIO</th>
<th>BY VOLUME</th>
<th>BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base: N59111 (43322928)</td>
<td>5.5 parts</td>
<td>5 parts</td>
</tr>
<tr>
<td>Activator: N39/1327 (07169000)</td>
<td>1 part</td>
<td>1 part</td>
</tr>
<tr>
<td>Thinner: N39/3460 (09099000)</td>
<td>to viscosity</td>
<td>2.4 parts</td>
</tr>
</tbody>
</table>

Specifications

N59111 is listed on:

- 80-T-35-5256
- ABP 4-2125
- WL 5.7030

N59111 meets the performance requirements of:

- AIMS 04-04-005

Product Compatibility

N59111 is compatible with the following primer specifications:

- AIMS 04-04-001
- AIMS 04-04-002
- WL 5.7140

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

Ensure surface is clean, dry and intact using a high performance cleaner. DeSoto® CN20 or Desoclean™ 45 solvent cleaners are recommended. Observe recommended overcoating windows for primers and / or intermediate coat. Applicable to all types of composite materials previously treated with a chromate-free primer. Prior to application of N59111, sand with abrasive paper grade 340 or 400.

Instructions for Use

Hand stir or shake the base to ensure all components are adequately dispersed. Add the activator to the base. Thoroughly stir until a smooth uniform mix is obtained. Allow 15 minutes induction before addition of required thinner and stir well before use.

Note: All products and components should be placed in ambient conditions of 15-30°C (59-86°F) for at least 24 hours prior to mixing and application.

Induction Time:
15 minutes (before thinning)

Viscosity: (23°C/73°F)

- AFNOR4 16 - 18 seconds
- BSB3 30 - 35 seconds
- FORD4 15 - 17 seconds
- ISO3 50 - 70 seconds
- ISO4 22 - 32 seconds
- ZAHN2 20 - 22 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 - 35°C (59 - 95°F)
Relative Humidity 20 - 85%

Application:
Apply three light coats, allowing three minutes flash off between each coat to achieve a total dry film thickness of 35-45 µm

Theoretical Coverage: (ready for use)
7 m²/Lt @ 40 µm dry film thickness
280 ft²/US gal @ 1.6 mil dry film thickness

Recommended Dry Film Thickness:
35 - 45 µm
1.4 - 1.8 mil

Dry Film Density:
1.2 g/cm³
10.2 lbs/US gal

Dry Film Weight:
49 g/m² @ 40 µm dry film thickness
0.010 lbs/ft² @ 1.6 mil dry film thickness

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

Equipment: N59111 is compatible with most types of current spray equipment.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Tip Size</th>
<th>Air Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airmix</td>
<td>1.3 to 1.5mm</td>
<td>44 to 73 psi (3 to 5 bar)</td>
</tr>
</tbody>
</table>

N59111 is NOT suitable for application using airless or electrostatic equipment and is NOT suitable for application by brush, roller or dipping.

Equipment Cleaning:
Clean spray equipment before use and as soon as possible after use. DeSoto® CN20, CN44 or Desoclean™ 45 solvent cleaners are recommended.
Physical Properties

**Colour:**
Black

**Gloss:**
15 - 30 units with a 60° gloss meter

<table>
<thead>
<tr>
<th>Drying Times @ 50% Relative Humidity</th>
<th>23°C (73°F)</th>
<th>70°C (158°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry to Touch</td>
<td>2 hours</td>
<td></td>
</tr>
<tr>
<td>Dry to Handle</td>
<td>4 hours</td>
<td>45 minutes</td>
</tr>
<tr>
<td>Dry to Overcoat</td>
<td>2 hours (min.)</td>
<td>72 hours (max.)</td>
</tr>
<tr>
<td>Full Cure</td>
<td>7 days</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

*Note: Drying times listed above are dependent upon film thickness applied, air flow conditions and application technique.*

**Flash Off Time:**
30 minutes prior to force drying

**VOC: (ASTM)**
- Mixed (unthinned): 640 g/Lt
- N59111 Base Component: 710 g/Lt
- N39/1327 Activator: 270 g/Lt
- N39/3460 Thinner: 870 g/Lt

**Flash Point:**
- N59111 Base Component: 31°C (88°F)
- N39/1327 Activator: 38°C (100°F)
- N39/3460 Thinner: 2°C (36°F)
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Shelf Life:

N59111 Base Component 24 months in original unopened container
N39/1327 Activator 24 months in original unopened container
N39/3460 Thinner 10 years in original unopened container

Note: Shelf life may vary due to OEM specification requirements. Refer to container label for specific shelf life information.

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  
Fax 61 (3) 9335 3490

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Fax 81 561 35 5201

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### Americas

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