ERC5 Erosion Resisting Polyurethane Coating

Product Description
ERC5 is a two pack, polyurethane erosion resisting coating developed for the protection of strike areas and leading edges of aircraft. When applied over the recommended primer system, ERC5 provides excellent resistance to erosion by rain or grit.

- Erosion resistant coating
- Excellent resistance to de-icing fluids & phosphate ester hydraulic oils
- Available in a range of colours
- Also available as gloss clearcoat

Components
Mix Ratio (by volume)
- ERC5 (Base) 1 part
- ACT124 (Activator) 1 part
- T609 (Thinner) To Viscosity (Approx. 0.5 parts)

Specifications
ERC5 is qualified to:
- Def Stan 80-158
- SP-J-513-B-0307 (Limited colour range)

Product Compatibility
ERC5 is compatible with the following primer specifications:
- BS2X33 A+B
- SP-J-513-A-0013
- SP-J-513-A-0016

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 solvent cleaner DeSoto® CN 20 or Desoclean™ 45 solvent cleaner are recommended. Observe recommended overcoating window for primers.

Instructions for Use

Base may require mechanical agitation. Ensure all components are adequately dispersed. Add activator to base and stir well. Add thinner to achieve recommended viscosity.

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:

Not required

Viscosity: (23°C/73°F)

<table>
<thead>
<tr>
<th>ERC5 (Matt)</th>
<th>ERC5/C9071 (Gloss Clearcoat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFNOR4</td>
<td>16 - 19 seconds</td>
</tr>
<tr>
<td>BSB3</td>
<td>31 - 37 seconds</td>
</tr>
<tr>
<td>BSB4</td>
<td>18 - 22 seconds</td>
</tr>
<tr>
<td>FORD4</td>
<td>16 - 18 seconds</td>
</tr>
<tr>
<td>ISO4</td>
<td>24 - 35 seconds</td>
</tr>
<tr>
<td>ZAHN2</td>
<td>20 - 23 seconds</td>
</tr>
</tbody>
</table>

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

Pot Life:

1.5 hours @ 21 - 25°C (70 - 77°F)

Application Guidelines

Recommended Application Conditions:

- Temperature: 15 - 35°C (59 - 95°F)
- Relative Humidity: 30 - 85%
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Application:
Matt Finish:
Apply one double track coat and allow to flash off for 10 minutes. Apply a second double track coat and allow to dry for a minimum of one hour - This process will achieve approx. 60µm dry film thickness.
Repeat the above process 3 to 5 times using freshly mixed product each time to achieve 200 to 300µm recommended dry film thickness.

Gloss Finish:
Apply the product as detailed above for matt finish. 16 to 24 hours after application of final coat apply one double track coat of ERC5/C9071 gloss clearcoat to achieve 25 to 40µm dry film thickness.

Theoretical Coverage: (ready for use)
1 m²/Lt @ 250 µm dry film thickness
40 ft²/US gal @ 10 mil dry film thickness

Recommended Dry Film Thickness:
200 - 300 µm
8 - 12 (mil)

Dry Film Density:
1.25 g/cm³ (grey)
10.4 lbs/US gal

Dry Film Weight:
312 g/m² @ 250 µm dry film thickness
0.064 lbs/ft² @ 10 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: ERC5 is compatible with all current types of spray equipment.

<table>
<thead>
<tr>
<th>Equipment Type</th>
<th>Tip Size</th>
<th>Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Airspray</td>
<td>1.8 - 2.2mm</td>
<td>50 to 60 psi (3 to 4 bar)</td>
</tr>
<tr>
<td>HVLP</td>
<td>1.6 - 1.8mm</td>
<td>29 to 36 psi (2 to 2.5 bar)</td>
</tr>
</tbody>
</table>

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

**Colour:**
Limited colour range available.

**Gloss:**
- **MATT:** <5 units with a 60° gloss meter
- **GLOSS:** > 85 units with a 60° gloss meter (when used with ERC5/C9071 gloss clear coat)

<table>
<thead>
<tr>
<th>DRYING TIMES @ 23°C (73°F) 50 % R.H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface Dry</td>
</tr>
<tr>
<td>Dry to Tape</td>
</tr>
<tr>
<td>Dry to Fly</td>
</tr>
<tr>
<td>Full Cure</td>
</tr>
</tbody>
</table>

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

**Flash Off Time:**
Refer to application guide section

**VOC: (ASTM)**

<table>
<thead>
<tr>
<th></th>
<th>g/Lt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixed ready for use</td>
<td>610</td>
</tr>
<tr>
<td>ERC5 Base Component</td>
<td>730</td>
</tr>
<tr>
<td>ACT124 Activator</td>
<td>350</td>
</tr>
<tr>
<td>T609 Thinner</td>
<td>880</td>
</tr>
</tbody>
</table>

**Flash Point:**

<table>
<thead>
<tr>
<th></th>
<th>°C (°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC5 Base Component</td>
<td>-4°C (25°F)</td>
</tr>
<tr>
<td>ACT124 Activator</td>
<td>4°C (25°F)</td>
</tr>
<tr>
<td>T609 Thinner</td>
<td>-5°C (25°F)</td>
</tr>
</tbody>
</table>
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Shelf Life:

<table>
<thead>
<tr>
<th>Component</th>
<th>Shelf Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERC5 Base Component</td>
<td>24 months in original unopened container</td>
</tr>
<tr>
<td>ACT124 Activator</td>
<td>24 months in original unopened container</td>
</tr>
<tr>
<td>T609 Thinner</td>
<td>10 years in original unopened container</td>
</tr>
</tbody>
</table>

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

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PPG Aerospace
Sealants and Coatings
Darlington Road
Shildon, Co Durham UK
DL4 20P
www.ppgaerospace.com
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