

PR143 Epoxy Primer

Product Description

PR143 is a two-pack, ambient curing, chromated epoxy primer developed for the internal and external protection of aircraft.

- Ambient curing
- Excellent resistance to phosphate ester hydraulic oils
- Superior water resistance & adhesion properties
- Excellent corrosion resistance
- Also available in military grades - (separate TDS available on request, may be subject to military export control restrictions)

Components



Mix Ratio (by volume)

- | | |
|-------------------------|--------------|
| • PR143 (Base) | 2 parts |
| • ACT143 (Activator) | 1 part |
| • T187 or T17 (Thinner) | to viscosity |

Specifications



PR143 is qualified to:

- AVN 7-003
- BS2X33B
- DOL 255
- MSRR 9064
- SP-J-513-A-0016 Type I Class A

PR143 meets the performance requirements of:

- MIL-P-23377 Type I
- AIMS 04-04-001
- AIMS 04-04-004

Product Compatibility

PR143 is compatible with the following primer / topcoat specifications:

- BS2X32+A2
- BS2X34 A+B
- SP-J-513-C-0083

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

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Surface Preparation and Pretreatment



Ensure correct surface pre-treatment has been carried out and that drying and overcoat times within the process are adhered to. Ensure the surface is clean, dry, and intact using a high performance solvent cleaner - DeSoto® CN20 or Desoclean™ 45 solvent cleaners are recommended. Check the temperature and humidity are within acceptable limits.

Instructions for Use



Hand stir or mechanically shake the base material until all the components are uniformly dispersed. Add activator to base material and mix thoroughly. Add thinner to the recommended viscosity (approx. 1 volume).

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:

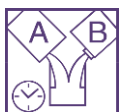
Not required



Viscosity: (23°C/73°F)

| | |
|------------|-----------------|
| • AFNOR2.5 | 45 - 56 seconds |
| • AFNOR4 | 15 - 16 seconds |
| • BSB3 | 26 - 30 seconds |
| • DIN4 | 13 - 14 seconds |
| • FORD4 | 12 - 15 seconds |
| • ISO3 | 37 - 50 seconds |
| • ISO4 | 18 - 22 seconds |
| • ZAHN2 | 16 - 20 seconds |

Note: Viscosities quoted are 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 - 35°C (59 - 95°F)

Relative Humidity 30 - 85%

Application:

Apply one wet even cross-coat to achieve a dry film thickness of 15 - 25 µm (0.6-1 mil)

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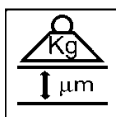


Theoretical Coverage: (ready for use)

11 m² Lt @ 20 µm dry film thickness
440 ft² US gal @ 0.8 mil dry film thickness

Recommended Dry Film Thickness:

15 - 25 µm
0.6 - 1 mil



Dry Film Density:

2.2 g/cm³
18.8 lbs/US gal

Dry Film Weight:

45 g/m² @ 20 µm dry film thickness
0.009 lbs/ft² @ 0.8 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:

PR143 is compatible with most forms of current spray equipment.



| Equipment Type | Tip Size | Pressure |
|----------------------------|---------------|----------------------------------|
| Airmix | 609 to 644 | 725 to 870 psi (50 to 60 bar) |
| HVLP Air Spray | 1.2 to 1.6 mm | 22 to 29 psi (1.5 to 2 bar) |
| Conventional | 1.2 to 1.5 mm | 43 to 58 psi (3 to 4 bar) |
| Airless | 9 to 11 thou | 58 to 87 psi (4 to 6 bar) |
| Air-assisted Airless | 609 to 611 | 58 to 73 psi (4 to 5 bar) |
| Low Pressure Electrostatic | 1.2 mm | 72 to 87 psi (5 to 6 bar) |

Equipment Cleaning:

Clean spray equipment before use and as soon as possible after use, DeSoto® CN20 or Desoclean™ 45 solvent cleaners are recommended.

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Physical Properties

**Colour:**

Yellow
Green

**Gloss:**

<20 units with a 60° gloss meter



| DRYING TIMES | 23°C (73°F) | 70°C(158°F) | 125°C (257°F) |
|-------------------|---------------|-------------|---------------|
| Dry to Handle | 40 minutes | | |
| Dry to Tape | 4 hours | | |
| Dry to Mask | 4 hours | | |
| Hard Dry | 6 hours | 30 minutes | |
| Re-coat with Self | 30 minutes | | |
| Dry to Overcoat | 4 to 48 hours | | |
| Full Cure | 7 days | 3 hours | 1 hour |

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

**Flash Off Time:**

15 minutes @ 20 - 25°C (68 - 77°F) before force dry.

**VOC: (ASTM) (2:1:1 mix)**

| | |
|----------------------|----------|
| Mixed ready for use | 675 g/Lt |
| PR143 Base Component | 550 g/Lt |
| ACT143 Activator | 720 g/Lt |
| T17 Thinner | 830 g/Lt |
| T187 Thinner | 870 g/Lt |

**Flash Point:**

| | |
|----------------------|-------------|
| PR143 Base Component | 20°C (68°F) |
| ACT143 Activator | 20°C (68°F) |
| T17 Thinner | 16°C (61°F) |
| T187 Thinner | 32°C (90°F) |

Shelf Life:

| | |
|----------------------|--|
| PR143 Base Component | 24 months in original unopened container |
| ACT143 Activator | 24 months in original unopened container |
| T17 Thinner | 10 year in original unopened container |
| T187 Thinner | 10 year in original unopened container |

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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.

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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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Issue Date: 07/20

Lit: 4292