02GN093 Chrome-Free Epoxy Polyamide Primer

Product description

02GN093 is a chrome-free, high solids, corrosion-, chemical-, and solvent-resistant, epoxy primer for use on the exterior of aircraft.

- Chrome-free
- Corrosion inhibiting
- Chemical and solvent resistant
- Resistant to immersion in hydraulic fluids, lubricating oils, phosphate ester based hydraulic fluids, Skydrol® hydraulic fluid and distilled water

Components

Mix ratio (by volume):

• 02GN093 (base component)	3 parts
• 02GN093CAT (catalyst component)	1 part

Specifications

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

02GN093 primer is listed on:

- Technical Order 1F-15A-23 Revision 28

Note: PPG Aerospace recommends you check the most recent Process Standard for updated information.

Product compatibility:

02GN093 is compatible with the following topcoat specifications:

- DMS 2115
- MIL-PRF-85285
- MIL-PRF-22750
- MMS 420

Surface preparation and pretreatments

02GN093 primer can be applied over clean, dry, intact aluminum and composite surfaces. Aluminum surfaces shall be treated with materials conforming to MIL-DTL-5541, MIL-A-8625, or equivalent.

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Instructions for use

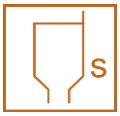
Mixing instructions:

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 the one volume of catalyst to three volumes 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° 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:

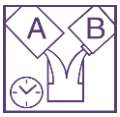
Not required for standard dry time. Induction time of 30 minutes is recommended for applications requiring faster dry times, such as touch up or cold weather.



Viscosity: (23°C/73°F)

- #4 Ford cup 20 to 30 seconds

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



Pot life:

4 hours @ 21 - 25°C (70 - 77°F)

Application guidelines

Recommended application conditions:

Temperature	15 - 30°C (59 - 86°F)
Relative Humidity	20 - 90%

Application:

Ground the aircraft and the application equipment before priming. Stir the primer slowly during the application. The suggested film thickness is 15 to 22.5 microns (0.6 to 0.9 mils). This can be accomplished by one medium coat with 50% overlap.

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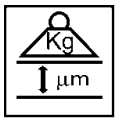
These application guidelines represent PPG's best advice in standard conditions. Some parameters will be influenced by environmental conditions, equipment settings, and other variables.

Theoretical coverage:

19 square meters/liter at 25 microns dry film (768 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 15 to 23 microns (0.6 to 0.9 mils)



Dry Film Density:

1.5 grams/cubic centimeter (12.51 pounds/gallon)

Dry Film Weight:

39.79 grams/square meter at 25 microns dry film (0.00815 pounds/square feet at 1 mil dry film)

Equipment:

02GN093 is compatible with all current forms of spray equipment.

Equipment Type	Tip Size	Pot Pressure	Atomization Pressure at the Cap
Electrostatic Air Spray Gun	1.2 mm or 1.5 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)
Electrostatic Air Assisted Airless Spray Gun	#611 or #613 (Graco Nomenclature)	700 to 1200 psi (48 to 82 bar)	40 to 60 psi (2.8 to 4.1 bar)
High Volume Low Pressure Spray Gun (HVLP)	1.0 mm to 1.4 mm	10 to 20 psi (0.69 to 1.4 bar)	10 psi maximum (0.69 bar)
Conventional Air Spray Gun	1.2 mm to 1.8 mm	10 to 20 psi (0.69 to 1.4 bar)	45 to 60 psi (3.1 to 4.1 bar)

Equipment Cleaning:

Clean spray equipment as soon as possible after use. Flush spray equipment with IS-237 (MIL-T-81772 Type II) 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)

Color Aqua

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Gloss Not Applicable

Dry times	21 - 27°C (70 - 80°F)
Topcoat window	3 - 24 hours
Tack free	2 ½ hours minimum
Dry hard	3 ½ hours maximum
Full cure	14 days minimum

Note: Dry times above were established at room (ambient) temperatures, 75° ± 5°F and 50% ± 10% relative humidity. After 8 hours cure, it is recommended to solvent wipe the entire primed surface before top coating. After 24 hours of cure, it is recommended to scuff sand the entire primed surface for optimal inter-coat adhesion. Ref: T.O. 1-1-8 Section 6.12.6.5

For dry to stack conditions only. Allow a minimum of 15 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.

Temperature	Time
49°C (120°F)	45 minutes
60°C (140°F)	30 minutes
71°C (160°F)	20 minutes
82°C (180°F)	15 minutes

Note: Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% relative humidity.

VOC:

Mixed, ready to use VOC (EPA method 24)	324 grams/liter
Base Component	386 grams/liter
Catalyst Component	190 grams/liter

Flash Point closed cup:

Base Component	8°C (46°F)
Catalyst Component	8°C (46°F)

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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:

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ASC – Australia
Tel 61 (3) 9335 1557
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