

44GN011 Water Reducible Epoxy Primer

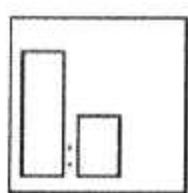
TECHNICAL DATA SHEET

Product Description

44GN011 is a water reducible, chemically cured, two-component epoxy polyamide primer. 44GN011 is formulated to protect the structural interior of aircraft from corrosion.

- Corrosion inhibiting
- Compatible with epoxy and urethane interior topcoats
- Excellent adhesion to aluminum and composite surfaces
- Chemical and solvent resistant
- Resistant to immersion in hydraulic fluids, lubricating oils, phosphate ester based hydraulic fluids and distilled water

Components



Mix ratio (by volume):

• 44GN011 (base component)	2 parts
• 44GN011CAT (catalyst component)	1 part
• Reducer (Distilled or Deionized water)	4 ½ parts water by volume (approximately 150%)

Specifications



44GN011 primer is qualified to:

- 207-9-474
- A8B81A1
- BMS 10-11 Type I Class A
Grade E
- C813245
- EMS 93283 Comp W
- GMS 5005 Type I
- GP11GY
- HMS D1-002 Type I
- HJMS-7102 Class 1 Grade A
- MCS0200
- MS-424 Type II
- RMS 118 Type I Class L & M
- STMG-L753 Class C
- TH5.703

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

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Product Compatibility:

44GN011 primer is compatible with the following topcoat specifications:

- BMS 10-11 Type II
- BMS 10-60 Type I & II

Surface Preparation and Pretreatments



44GN011 primer can be applied over clean, dry, intact aluminum and composite surfaces. Aluminum surfaces shall be treated with materials conforming to MIL-DTL-5541 or equivalent.

Instructions for Use



Mixing Instructions:

Standard can kit (mixed in separate container):

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. Pour two volumes of base component into a separate clean container. Slowly add the one volume of catalyst to the two 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 5 minutes. To the catalyzed primer, add approximately 4.5 volumes (150%) of distilled or deionized water. Slowly add the water in one-third increments, mixing thoroughly after each addition, until fully incorporated and homogeneous. Be sure to scrape the sides and bottom of the container. Constant agitation of the material during spray application is recommended. The water is used to adjust the viscosity. Volumes of water needed may vary between 125 - 175%.

Kit Size	44GN011Base	44GN011CAT	D.I. Water	Yield
GK	85 oz. / 2.51 L	43 oz. / 1.27 mL	192 oz. / 5.68 L	2.5 gal.
QK	21 oz. / 621 mL	11 oz. / 325 mL	48 oz. / 1.42 L	2.5 qt.

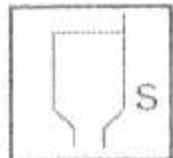
Note: It is important to condition the paint for 24 hours prior to mixing by placing all materials in the shop or hangar, with ambient temperatures between 13° and 35°C (55° to 95°F). The minimum temperature of the paint components should be 13°C (55°F) prior to mixing.

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Induction Time:

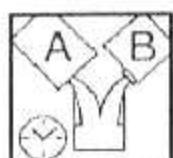
Not Required



Viscosity: (23°C/73°F)

• #2 EZ Zahn cup	20 ± 2 seconds
• #2 Ford Cup	31 to 39 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 12.5 to 22.5 microns (0.5 to 0.9 mils). This can be accomplished with one medium coat with a 50% overlap.

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



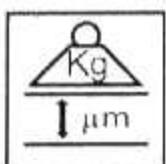
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Theoretical Coverage:

10 square meters/liter at 25 microns dry film (394 square feet/gallon at 1 mil dry film)
Recommended dry film thickness; 12.5 to 22.5 microns (0.5 to 0.9 mils)

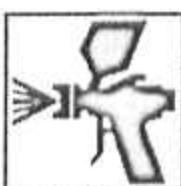


Dry Film Density:

1.68 grams/cubic centimeter (14.02 pounds/gallon)

Dry Film Weight:

3.96 grams/square meter at 25 microns dry film (0.00872 pounds/square feet at 1 mil dry film)



Equipment:

44GN011 primer 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)

**Note: When spraying with electrostatic spray equipment, ensure that this is rated for use with water-borne coatings. Spraying water-borne coatings with regular electrostatic spray equipment can result in safety hazards.*

Equipment Cleaning:

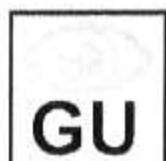
Water will clean approximately 95% of liquid primer remaining on equipment. Follow with IS-248 Cleaning Solvent for Water Reducible Primer to remove any residual primer from equipment. Once material has cured, use an approved chemical paint removal system to strip primer from parts and equipment. Is with water.

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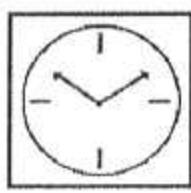
Physical Properties (product)



Color: BAC 452 Green



Gloss: 10 G.U. maximum at 60°



Dry Times	21 - 27°C (70 - 80°F)
Dust Free	15 minutes maximum
Tack Free	2 hours maximum
Dry Through	6 hours maximum
Dry to Tape	4 hours minimum
Full Cure	7 days

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 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)	90 minutes
60°C (140°F)	60 minutes
71°C (160°F)	40 minutes
82°C (180°F)	30 minutes

Note: Ambient temperatures are defined as 70° ± 10°F and 50% ± 10% Relative Humidity. For more information please refer to BAC 5736.

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VOC

VOC:

Mixed, ready to use VOC (EPA method 24)	336 grams/liter
Base Component	332 grams/liter
Catalyst Component	344 grams/liter



Flash point closed cup:

Base Component	22°C (72°F)
Catalyst Component	31°C (87°F)

Shelf Life:

9 months from date of manufacture.

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.



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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:

Asia Pacific

ASC – Australia

Tel 61 (3) 9335 1557
Fax 61 (3) 9335 3490

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