Technical Data Sheet Aerospace Coatings



44GN060 Water Reducible Epoxy Primer

Product description

44GN060 is a water reducible, chemically cured, two-component epoxy polyamide primer. 44GN060 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):

- 44GN060 (base component)
- 44GN060CAT (catalyst component)
- Reducer (Distilled or Deionized water)

2 parts 1 part

4.5 parts water by volume (approximately 150%)

Specifications



44GN060 primer is qualified to the following material specificaitons:

- A8B81A1
- BAMS 565-001 Gade B Category 2 Type 1
- BMS 10-11 Type I Class A Grade E
- CMS-CT-202 Type I Class 4 in qualification
- HMS-D1-002

- MS100013E Class W
- RMS 118Type I Class L & M
- RPS 13.97 Type I Grade A Class L
- SMS111202 Type I Class 1 Grade C
- STMG-L753 Class A, B & C

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

Product compatibility:

44GN060 primer is compatible with the following topcoat specifications:

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

• CMS-CT-203 Type I Class 4

Surface preparation and pretreatments



44GN060 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):

Add the catalyst to the base component and shake for 5 minutes. Pour out into a separate container such as a pressure pot. Fill the original container from the catalyzed material with DI or Distilled water and shake or stir. Add $\frac{1}{2}$ of this water to the catalyzed material while stirring. When stirred in, add the other $\frac{1}{2}$ container of water while stirring. Fill this container $\frac{1}{2}$ full and add it while stirring. This 150% water addition will yield a viscosity of approx 20 \pm 2 seconds in #2 EZ Zahn cup. Add small amounts of water if necessary to achieve this viscosity. A slight variation in water is normal. Product can accept 175% water reduction.

1-Step mixing (mixed in base container):

Add the entire catalyst component to the base component. Fill the can to approximately the bottom of the chime with distilled or deionized water Secure the can lid and place on paint shaker in an inverted position for 10-15 minutes. **DO NOT SHAKE LONGER THAN 15 MINUTES.** Primer is now ready for use.

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



Viscosity: (23°C/73°F)

#2 EZ Zahn cup
 #2 Ford Cup
 20 ± 2 seconds
 31 to 39 seconds

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



Pot life:

6 hours @ 21 - 25°C (70 - 77°F)

44GN060 Water Reducible Epoxy Primer 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.



Theoretical coverage:

9.65 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:

1.66 grams/cubic centimeter (13.85 pounds/gallon)

Dry film weight:

42.2 grams/square meter at 25 microns dry film (0.00864 pounds/square feet at 1 mil dry film)



Equipment:

44GN60 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.ls with water.

Physical Properties (product)



Color: BAC 4910 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, $75^{\circ} \pm 5^{\circ}F$ and $50\% \pm 10\%$ 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 $70^{\circ} \pm 10^{\circ}$ F and $50\% \pm 10\%$ Relative Humidity. For more information please refer to BAC 5736.



VOC:

Mixed, ready to use VOC (EPA method 24) 337 grams/liter
Base Component 334 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 to most OEM specifications. Consult the specification you are procuring to verify shelf life requirements.

Note: Shelf life is provided for original, unopened containers.

<u>Note:</u> 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.

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

ASC – Japan Tel 81 561 35 5200 Fax 81 561 35 5201

ASC – South East Asia Tel 65 6861 1119 Fax 65 6861 6162

ASC – Suzhou Tel (86-512) 6661 5858 Fax (86-512) 6661 6868

ASC – Tianjin Tel (86-022) 2482 8625 Fax (86-022) 2482 8600

Americas

1 (818) 362-6711 or 1-800-AEROMIX

Europe and Middle East

ASC – Central Europe Tel 49 (40) 742 193 10 Fax 49 (40) 742 139 69

ASC – Middle East & India Tel (971) 4 883 9666 Fax (971) 4 883 9665

ASC – North Europe Tel 44 (0) 1388 770222 Fax 44 (0) 1388 770288

ASC – South Europe Tel 33 (0) 235 53 43 71 Fax 33 (0) 235 53 54 44

All recommendations, statements, and technical data contained herein are based on tests we believe to be reliable and correct, but accuracy and completeness of said tests are not guaranteed and are not to be construed as a warranty, either expressed or implied. User shall rely on his own information and tests to determine suitability of the product for the intended use and assumes all risks and liability resulting from his use of the product. Seller's and manufacturer's sole responsibility shall be to replace that portion of the product of this manufacturer which proves to be defective. Neither seller nor manufacturer shall be liable to the buyer or any third person for any injury, loss, or damage directly or indirectly resulting from use of, or inability to use, the product. Recommendations or statements other than those contained in a written agreement signed by an officer of the manufacturer shall not be binding upon the manufacturer or seller.

PRC-DeSoto International, Inc. 12780 San Fernando Road Sylmar, CA 91342

www.ppgaerospace.com

Issue Date: 3/20 Lit: 4633