

# 44GN098 Water Reducible High Performance Epoxy Primer

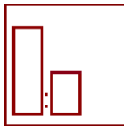
## TECHNICAL DATA SHEET

### Product Description

44GN098 is a chrome-free, water reducible, chemically cured, two-component epoxy polyamide primer.

- Corrosion inhibiting
- 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):

- |  |   |
|--|---|
| • 44GN098 (base component)               | 2 parts   |
| • 44GN098CAT (catalyst component)        | 1 part  |
| • Reducer (Distilled or Deionized water) | 4 parts water by volume<br>(Approximately 135%) |

Also available in touch up kits. For more details see [Instructions For Use](#) Section.

### Specifications



44GN098 primer is qualified to:

- |                                      |                                     |
|--------------------------------------|-------------------------------------|
| • 5PTMRT09 Grade B                   | • LMA-MR003 Class 2 Type II Grade A |
| • FMC9673-01                         | • MIL-PRF-85582 Type I Class N      |
| • FMS 3027 Form 3                    | • PWA 36515-3                       |
| • HMS 15-1100 Type I Class 2 Grade N |                                     |

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

#### Product Compatibility:

44GN098 primer is compatible with the following topcoat specifications:

- |                 |                 |
|-----------------|-----------------|
| • DMS2115       | • MIL-PRF-85285 |
| • MIL-PRF-22750 | • MIL-PRF-53039 |
| • MIL-PRF-64159 | • MMS-420       |

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## Surface Preparation and Pretreatments



44GN098 can be applied over clean, dry, intact aluminum surfaces 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 15 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 15 minutes. To the catalyzed primer, add approximately 4 volumes (135%) 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 135 - 150%.

For kit sizes contact your local Application Support Center.

#### **1-Step mixing (mixed in base container):**

Slowly add the entire catalyst component to the base component. Fill the can to the chime with distilled or deionized water. Secure the can lid and shake on paint shaker in an inverted position for 10 - 15 minutes. Do not shake longer than 15 minutes. Primer is now ready for use.

Kit Size	44GN098 Base	44GN098CAT	D.I. Water	Yield
1GK	36.3 oz. / 1.07 L	18.15 oz. / 537ml	73.6 oz. / 2.17 L	128 gal. / 3.78 L
1QK	8.5 oz. / 251 ml	4.26 oz. / 126 ml	19.2 oz. / 568 ml	32 oz. / 946 L
1PK	4.27 oz. / 126 ml	2.13 oz. / 63 ml	9.6 oz. / 284 ml	16 oz. / 473 L

#### **Touch-up kits available in 2TU and 4TU configuration:**

Touch-up kit configuration consists of an inner cup, which contains the 44GN098CAT catalyst/acetone blend located inside an outer cup (bottle) that contains the 44GN098 base component, and a container with water.

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To mix, remove lid, pour contents of inner cup (catalyst) into outer cup (base), add supplied water. Replace lid and shake well by hand, approximately 2 minutes. Material is now ready to apply.

TU kit size	Yield
1TU	1.01 fl. oz. / 29.9 ml
2TU	1.46 fl. oz. / 43.2 ml
4TU	2.64 fl. oz. / 84.9 ml

*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:**

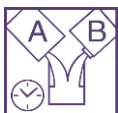
Not Required



**Viscosity:** (23°C/73°F)

- #2 EZ Zahn cup 18 to 22 seconds
- #4 Ford cup 14 to 18 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 (0.5 to 0.9 mils). This can be accomplished with one medium coat with a 50% overlap.

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## Touch-Up-Kit Application:

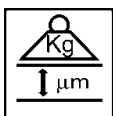
After mixing the touch up kit, use a brush or roller to apply.

*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:

11 square meters/liter at 25 microns dry film (441 square feet/gallon at 1 mil dry film)  
 Recommended dry film thickness; 15 to 22.5 microns (0.6 to 0.9 mils)



## Dry Film Density:

1.65 grams/cubic centimeter (13.76 pounds/gallon)

## Dry Film Weight:

3.90 grams/square meter at 25 microns dry film (0.00859 pounds/square feet at 1 mil dry film)



## Equipment:

44GN098 primer is compatible with all current forms 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.*

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## 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.

## Physical Properties (product)



**Color:** Green



**Gloss:** 25 G.U. maximum at 60°



Dry Times	21 - 27°C (70 - 80°F)
Tack Free	1 hour minimum
Dry Hard	6 hours maximum
Dry to Tape	6 hours minimum
Overcoat Time	2 hours minimum to 8 hours maximum
Full Cure	14 days maximum

*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)	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.*

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**VOC:**

Mixed, ready to use VOC (EPA method 24)	133 grams/liter
Base Component	297 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:**

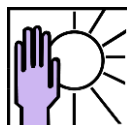
**Can kit:** 12 months from date of manufacture.

**Touch Up kit:** 4 months from date of packaging.

*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](http://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**

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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

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Tel 33 (0) 235 53 43 71  
Fax 33 (0) 235 53 54 44

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