

44GN024 Water Reducible Epoxy Primer

TECHNICAL DATA SHEET

Product Description

44GN024 is a chromated, 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):

- | | |
|--|---|
| • 44GN024 (base component) | 1 part |
| • 44GN024CAT (catalyst component) | 1 part |
| • Reducer (Distilled or Deionized water) | 3 parts water by volume
(approximately 150%) |

Available in touch up kits. For more details see Instructions For Use Section.

Specifications



44GN024 primer is qualified to:

- | | |
|---------------------------------|-----------------|
| • 400-73743 Type I Class C2 | • MMS-423H |
| • MIL-PRF-85582 Type I Class C2 | • MS-424 Type I |

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

Product Compatibility:

44GN024 primer is compatible with the following topcoat specifications:

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

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Surface Preparation and Pretreatments



44GN024 can be applied over clean, dry, intact aluminum surfaces treated with materials conforming to MIL-DTL-5541 or equivalent.

Instructions for Use



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 one volume of the base component into a separate clean container. Slowly add the one volume of catalyst to one volume 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 approx. 3 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. Water can be used to adjust the viscosity. Volumes of water needed may vary between 125 - 175%.

Kit Size	44GN024 Base	44GN024CAT	D.I. Water	Yield
GK	64 oz. / 1.89 L	64 oz. / 1.89 L	192 oz. / 5.68 L	2.5 gal. / 9.46 L
QK	16 oz. / 473 ml	16 oz. / 473 ml	48 oz. / 1.42 L	80 oz. / 2.37 L

Touch-up kits available in 2TU configuration:

Mix Ratio (2TU) 1:1:3 parts by volume
 1 part 44GN024 base component to
 1 part 44GN024CAT catalyst
 3 parts distilled or deionized water

Touch-up kit configuration consists of an inner cup, which contains the 44GN024CAT catalyst/acetone blend located inside an outer cup (bottle) that contains the 44GN024 base component, and a container with water.

To mix, remove lid, pour contents of inner cup (catalyst) into outer cup (base), add 1.2 fl. oz. of water. Replace lid and shake well by hand, approximately 2 minutes. Material is now ready to apply

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:

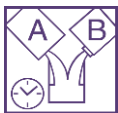
Not Required



Viscosity: (23°C/73°F)

- #2 EZ Zahn cup 20 ± 2 seconds
- #4 Ford cup 16 ± 2 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%

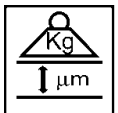
Application:

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 square meters/liter at 25 microns dry film (383 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:

1.66 grams/cubic centimeter (13.85 pounds/gallon)

Dry Film Weight:

3.90 grams/square meter at 25 microns dry film (0.00860 pounds/square feet at 1 mil dry film)

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Equipment:

44GN024 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.

Physical Properties (product)



Color: Light Green



Gloss: Not Applicable

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Dry Times	21 - 27°C (70 - 80°F)
Tack Free	1 hour minimum
Dry to Topcoat	2 hours
Dry hard	6 hours minimum
Full Cure	7 days

Note: Dry times above were established at room (ambient) temperatures, 75° ± 5°F and 50% ± 10% relative humidity.

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

VOC:

Mixed, ready to use VOC (EPA method 24)	340 grams/liter
Base Component	227 grams/liter
Catalyst Component	453 grams/liter



Flash point closed cup:

Base Component	7°C (45°F)
Catalyst Component	7°C (45°F)

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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 21°C to 32°C (70°F to 90°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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