PPG Aerospace Coatings

02Y024 Epoxy Primer

TECHNICAL DATA SHEET

Product Description

02Y024 is a conventional VOC, corrosion-, chemical- and solvent-resistant, military epoxy primer for use on the exterior of aircraft.

- 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):

- 02Y024 (base component) 1 part
- 02Y024CAT (catalyst component) 1 part

Available in multiple packaging configurations, below are the standard gallon, quart and pint kit yields:

Kit size	02Y024 base	02Y024CAT
Gallon	1 can filled @ 128oz/3.8L	1 can filled@ 128oz/3.8 L
Quart	1 can filled @ 32oz/946ml	1 can filled @ 32oz/946 ml
Pint	1 can filled @ 16oz/473ml	1 can filled @ 16oz/473 ml

Specifications

02Y024 is qualified to:

- FMS-3027 Form 1
- MIL-P-23377 Type I Class I

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

Product Compatibility:

02Y024 is compatible with the following primer specifications:

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

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Surface Preparation and Pretreatments

02Y024 primer can be applied over clean, dry, intact aluminum and composites surfaces. Aluminum surfaces shall be treated with materials conforming to MIL-C-5541 or equivalent.

Instructions for Use

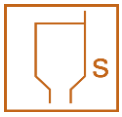
Mixing Instructions:

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 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 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:

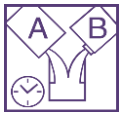
Temperature	21 - 27°C (70 - 80°F)
Induction Time Required	30 minutes



Viscosity: (23°C/73°F)

- #4 Ford cup 18 ± 4 seconds

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



Pot Life:

8 hours @ 21 - 25°C (70 - 77°F)

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Application Guidelines

Recommended Application Conditions:

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

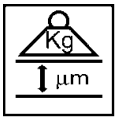
Application:

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:

11 square meters/liter at 25 microns dry film (452 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:

1.60 grams/cubic centimeter (13.35 pounds/gallon)

Dry Film Weight:

3.78 grams/square meter at 25 microns dry film (0.00833 pounds/square feet at 1 mil dry film)

Equipment:

02Y024 are 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)

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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 Yellow

Gloss Not Applicable

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

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.

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VOC:

Mixed, ready to use VOC (EPA method 24)	580 grams/liter
Base Component	492 grams/liter
Catalyst Component	668 grams/liter

Flash Point closed cup:

Base Component	-7°C (20°F)
Catalyst Component	-5°C (23°F)

Shelf Life:

12 months from date of manufacture for PRC-DeSoto Standard

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.

<u>Storage Recommendations</u>

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:

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