Technical Data Sheet Aerospace Coatings



44GY034A Chrome-Free Water Reducible Epoxy Primer

Product description

44GY034A is a chromate-free, water reducible, epoxy polyamide primer for composite surfaces.

- Chrome-free
- · Re-coatable in two hours
- Chemical and solvent resistant
- Resistant to immersion in hydraulic fluids, lubricating oils and distilled water

<u>Components</u>



Mix ratio (by volume):

- 44GY034A (base component) 2 parts
- 44GY034ACAT (catalyst component)
 Reducer (Distilled or Deionized water)
 4.5 parts water by volume (approximately 150% ± 10%)

Specifications



44GY034A primer is qualified to the following material specificaitons:

BAMS 565-014 Class A Grade B

DHMS C4.01 Type 3 Grade C

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

Surface preparation and pretreatments



44GY034A primer can be applied over clean, dry, intact composite surfaces.

Instructions for use



Mixing instructions:

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**. The water is used to adjust viscosity; additional volumes of water may vary.

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

20 ± 4 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

Optimum recommended application conditions:

Temperature 15 - 30°C (59 - 86°F)

Relative Humidity 20 - 90%

Application:

Stir the primer slowly during the application. The suggested film thickness is 12.5 to 17.5 microns (0.5 to 0.7 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:

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



Equipment:

44GY034A 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: Blue-gray



Gloss: Not applicable



Dry times	21 - 27°C (70 - 80°F)	
Tack free	1 hour maximum	
Overcoat time	2 hours minimum to 8 hours maximum*	
Dry to tape	2 hours minimum	
Dry through	8 hours maximum	
Full cure	7 days	

*If the 8-hour maximum overcoat time is exceeded, solvent wipe the entire primed surface prior to applying topcoat. After 24 hours of dry time, scuff sand the entire primed surface followed by solvent wiping prior to applying topcoat.

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) 339 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:

12 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:

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ASC – Australia Tel 61 (3) 9335 1557 Fax 61 (3) 9335 3490

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