01 Series HS Epoxy Topcoat

Product description

01 Series are chemically cured, two-component, high solids epoxy topcoats for use on aircraft and aerospace equipment.

- When used over properly applied commercial or military primers, provides excellent adhesion and flexibility
- Resistant to immersion in hydraulic fluids, lubricating oils and water
- Provides excellent chemical resistance to solvents
- VOC < 340 g/l (2.8 pounds/gallon)
- Rated up to 121 ± 3°C (250 ± 5°F)

Components

Mix ratio (by volume):

• 01 Series (base component)	3 parts
• 80X104A (catalyst component)	1 part

Specifications

01 Series is qualified to:

- GMS 5006
- 207-9-475

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

Product Compatibility:

01 Series is compatible with the following primer specifications:

- GMS 5005
- 207-9-474

Surface preparation and pretreatments

01 Series epoxy topcoats can be applied over clean, dry, intact primed surfaces.

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Instructions for use

Mixing instructions:

Thoroughly stir or shake the base component (Part A) before combining to ensure all solids are completely dispersed. Add one volume of catalyst component (Part B) to the three parts of base component (Part A). Do not use the catalyst component (Part B) from another color. 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. Thinners are not required for the mixed material. If the addition of a thinner is necessary, MIL-T-81772B Type II* (IS-237) is available. Do not add thinner to attempt to compensate for coatings beyond its useful pot life.

Note: Use only if needed and if local and state VOC limits allow.

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.

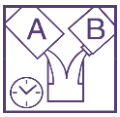
Induction time:

Temperature	21 - 27°C (70 - 80°F)
Induction time required	30 minutes

Viscosity: (23°C/73°F)

- #4 Ford cup 50 seconds maximum

Note: Viscosities quoted are typical values 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%

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Application:

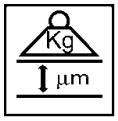
Coating may be applied over properly cleaned composite surfaces, and epoxy primer coatings. Apply the topcoat by spray, using two coats to a total dry film thickness of 1.7 - 2.3 mils. Apply the first coat as a light (mist) coat. Allow the coat to set for at least 15 minutes (depending on airflow, temperature and humidity) before applying the second coat to permit solvent evaporation. Apply the second coat in a full wet coat to achieve the desired film thickness.

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:

18.8 – 19.63 square meters/liter at 25 microns dry film (766 - 800 square feet/gallon at 1 mil dry film)

Recommended dry film thickness; 43 to 58 microns (1.7 to 2.3 mils)



Dry film density:

1.1 – 1.77 grams/cubic centimeter (9.18 - 14.77 pounds/gallon)

Dry film weight:

27.9 – 44.8 grams/square meter at 25 microns dry film (0.00573 – 0.00919 pounds/square feet at 1 mil dry film)

Equipment:

01 Series 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)

Equipment cleaning:

Clean spray equipment as soon as possible after use. Flush spray equipment with IS-237 Epoxy Reducer (MIL-T-81772B Type II) may be used for general cleanup of parts and equipment before coating has fully cured and is still in a liquid state. Once material is fully cured, use an approved chemical paint removal system to strip off coating.

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Physical properties (product)

Color Available in limited colors. Contact your local Application Support Center for available colors.

Gloss Available in flat, semi-gloss and full gloss

Dry times	21 - 27°C (70 - 80°F)
Set to touch	4 hours minimum
Dry to tape	8 hours minimum
Dry hard	8 hours, maximum
Full cure	7 days

Note: Dry times above were established at room (ambient) temperatures, 70° ± 10°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:

Mixed, ready to use VOC (EPA Method 24) < 340 grams/liter maximum

Flash point closed cup:

Base Component -20°C (-4°F)
Catalyst Component 22°C (72°F)

Shelf life:

12 months from date of manufacture.

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.

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:

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

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

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Americas

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

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.

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