

# 01F Series HS Epoxy Topcoat

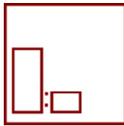
## TECHNICAL DATA SHEET

### Product Description

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

- Volatile organic hazardous air pollutants-free (VOHAP-free)
- 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):

- 01F Series (base component) 3 parts
- 80X109F (catalyst component) 1 part

Kit size	Yield (Mixed)
Gallon	2 gallons
Quart	2 quarts

### Specifications



01F Series is qualified to:

- MIL-PRF-22750 Type II Class H Grade A

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

#### Product Compatibility:

01F Series is compatible with the following topcoat specifications:

- MIL-DTL-53022
- MIL-PRF-23377
- MIL-DTL-53030
- MIL-PRF-85582

### Surface Preparation and Pretreatments



01F 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:

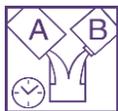
<b>Temperature</b>	<b>21 - 27°C (70 - 80°F)</b>
Induction Time Required	30 minutes



### 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)

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## Application Guidelines

### Recommended Application Conditions:

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

### Application:

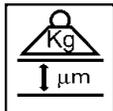
Coating may be applied over properly cleaned composite surfaces, and epoxy primer coatings. Apply the topcoat by spray, using two coats to a total dry film thickness of 1.7 - 2.3 mils. Apply the first coat as a light (mist) coat. Allow the coat to set for at least 15 minutes (depending on airflow, temperature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

82 square meters/liter at 25 microns dry film (890 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:

1.31 grams/cubic centimeter (10.93 pounds/gallon)

### Dry Film Weight:

4.0 grams/square meter at 25 microns dry film (0.00888 pounds/square feet at 1 mil dry film)

## 01F Series HS Epoxy Topcoat



### Equipment:

01F 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.

## Physical Properties (product)



**Color** Available in Federal STD 595C and other color standards



**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.*

## 01F Series HS Epoxy Topcoat

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 per MIL-PRF-22750

24 months from date of manufacture for Deft Standard

*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)**

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