



# Military Aerospace Coating

MIL-PRF-85285E, Type I and IV, Class H

Lusterless F93X4 Colors

## ADVANTAGES

- This product is qualified by the U.S. Naval Air Warfare Center (NAWC), Patuxent River, MD. to military aircraft specification MIL-PRF-85285E, Type I and IV, Class H.
- Simple 2:1 mix ratio
- Excellent weathering resistance.
- Contains less than 3.5 lbs/gal. (420 g/L) of VOC.
- Very low HAPS content <3% by weight
- Good anti-sag characteristics
- Two-component system
- Available in AMS-STD- 595 lusterless colors.

## DESCRIPTION

MIL-PRF-85285E, Type I and IV, Class H military coatings are two-component topcoats designed as a finish coat for military aircraft and equipment. They meet MIL-PRF-85285E, Type I and IV, Class H composition and performance specifications for lusterless gloss colors.

## COATING PROPERTIES

<b>Solids:</b>	<b>Base Component</b>	<b>Admixed</b>
By weight	50-60%	47-57%
By volume	42-47%	40-50%
<b>Wt./Gal.</b>	9.0-11 lbs./gal	9.0-11 lbs./gal
<b>Sp. Gravity</b>	1.08-1.32	1.09-1.32
<b>Viscosity—Sprayable</b>		
#4 Ford Cup		15-30 seconds
<b>Admixed V.O.C.</b>		
U.S. Exempt Solvent		<3.5 lbs./gal (420 g/L)
Non-Exempt Solvent		<4.9 lbs./gal (588 g/L)
<b>Useable Pot Life</b>		
at 77°F / 25°C, 0-65% R.H.		4 Hours
<b>Gloss:</b>		
60 degree		5 units maximum
20 degree		9 units maximum
<b>Theoretical Coverage</b>		
Per dry mil		650-800 ft. <sup>2</sup> / gal.
Per 25 microns		15.95-19.63 m <sup>2</sup> / L
<b>Dry Film Weight</b>		
Per dry mil		.0066-.0095 lbs. / ft. <sup>2</sup>
Per 25 microns		32.1-46.3 g / m <sup>2</sup>

## SHELF LIFE

Shelf Life is applicable only for materials stored in unopened and undamaged original factory filled containers.

Minimum Storage Temp: 35°F / 1.7°C  
 Maximum Storage Temp: 115°F / 46°C

F93X4 Series Base Component: 1 year  
 CM0893H31 Curing Agent 1 year

## SURFACE PREPARATION

### **Primed Surface**

Sherwin-Williams military 85285 aerospace coating should be applied to a surface that has been coated with an approved, properly prepared and applied Sherwin-Williams Aerospace primer system.

Refer to Sherwin-Williams Primer Product Data Sheets such as CM0724933 or E90G203 - MIL-PRF-23377, Type I, Class C2 Epoxy Primers.

Contact your Sherwin-Williams Representative for complete details.

## MIXING INSTRUCTIONS

Shake color component for 10 minutes before admixing.

Admix by Volume:

<b>2 Parts</b>	Component A Color F93X4 Series Type I and IV
<b>1 Part</b>	Component B CM0893H31

It is recommended to filter strain admixed and reduced paint before placing material in containers for spraying.

Option: Up to ½ part of solvent CM0110933 may be used to improve application characteristics. This addition MAY exceed your local VOC allowance. Dry, cure, & over coating times remain unaffected.

## APPLICATION

This product can be applied using conventional air spray, HVLP, Graco electrostatic airspray or air assisted airless equipment. Please consult your Sherwin-Williams representative for specific equipment settings.

1. Make sure pots, guns, and lines are purged and cleaned.
2. Mix thoroughly and filter strain before spray applying.
3. **Equipment Settings (i.e. Conventional settings):**  
Spray atomizing pressure: 50-60 psi (3.45-4.15bar)  
Pot pressure: 10-12 psi (0.69-0.83 bar) using a 60' fluid hose (3/8" diameter)  
Delivery Rate: 8-10 fluid oz (236-295 mL) per minute
3. Always air-blow and tack-wipe the surfaces to be painted.  
Electrostatic users: Ensure that the aircraft is properly grounded for potential static buildup.
4. Best application results are obtained by applying two medium wet coats. A 30 minute "tack-off" period between coats is suggested.
5. If the dry time between coats exceeds 24 hours after dry to tape, the surface should be thoroughly abraded with 240 or 320 grit sandpaper and/or red abrasive pads.
6. Recommended dry film thickness is 1.7-2.3 mils. Some colors may require thicker films to achieve complete hiding.

NOTE: Application of these product systems requires recommended temperature / humidity conditions and film thickness ranges. The material, hangar, and aircraft skin temperature should be no lower than 55°F / 13°C before, during, and after application.

## DRYING SCHEDULE

Dry times are based on the dry film thickness of 1.7 – 2.3 mils and mixed according to the mixing instructions identified above.

### **Air Dry Times** (75°F / 25°C and 50% RH)

Tack Free	3-4 Hours
To Tape	6-8 Hours

**Recoat Time:** (maximum) 24 Hours

NOTE: Lower temperatures, heavy film thickness, improper activator range selection and poor air movement will extend the dry time.

## EQUIPMENT CLEANUP

Clean tools/equipment immediately after use with MIL-T-81772, Type I. Follow manufacturer's safety recommendations when using any solvent.  
Use clean Ketone-type solvents such as CM0110308 MEK. Do not allow material to cure inside equipment.

## PRODUCT INFORMATION

*Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application, which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.*