



Semi-Gloss High Solids Polyurethane Topcoat

MIL-PRF-85285E, Type I, Class H
F92 Series

ADVANTAGES

- MIL-PRF-85285E, Type I Type I, Class H
- Simple 2:1 mix ratio
- Semi-gloss
- Contains less than 3.5 lbs/gal. (420 g/L) of VOC.
- Very low HAPS content <3% by weight
- Good anti-sag characteristics
- Free of lead and chromate hazards
- Two-Component system
- Available in Federal Standard 595C semi-gloss colors.

DESCRIPTION

MIL-PRF-85285E, Type I, Class H coatings are two-component topcoats designed as a finish coat for military aircraft and equipment. Sherwin-Williams F92 series meets the MIL-PRF-85285E, Type I, Class H composition and performance specifications and is sold as a semi-gloss.

COATING PROPERTIES

Solids:	Base Component	Admixed
By weight	49.0-54.0%	46.0-49.0%
By volume	41.0-43.0%	41.0-43.0%
Wt./Gal.	8.6-9.8 lbs./gal	9.2-9.9 lbs./gal
Sp. Gravity	1.03-1.18	1.10-1.20

Viscosity–Sprayable

#4 Ford Cup 14-18 seconds

Admixed V.O.C.

U.S. Exempt Solvent <3.50 lbs./gal (420 g/L)
Non-Exempt Solvent <5.10 lbs./gal (612 g/L)

Useable Pot Life

at 77°F / 25°C, 0-65% R.H. 4 Hours

Gloss:

60 degree 15-45 units

Theoretical Coverage

Per dry mil 660-680 ft.² / gal.
Per 25 microns 16.2-16.7 m² / L

Dry Film Weight

Per dry mil 0.006-0.008 lbs. / ft.²
Per 25 microns 30.7-35.5 g / m²

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

Product Number (F92 Series) Base Component: 1 year
CM0893H31 Catalyst 1 year

SURFACE PREPARATION

Primers must be applied under the MIL-PRF-85285 topcoats.

For **non-ferrous** substrates, use MIL-PRF-22337, Type I, Class C2, CM0724933. **Testing:** Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion and compatibility prior to full scale application.

Aluminum: Clean with acidic cleaner or other appropriate cleaner depending on contamination. Pretreat with chromate conversion coating MIL-DTL-5541F, wash primer DOD-P-15328D, E90G4, or anodize per MIL-A-8625F.

MIXING INSTRUCTIONS

Shake color component for 10 minutes before admixing.

Admix by Volume:

2 Parts Component A
F92 Series Colors

1 Part Component B
CM0893H31

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

Admixed product should be allowed a 30-minute induction time for optimum application performance.

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 boxcoats. A flash or "tack-off" period of 30-60 minutes (75°F / 25°C and 50% RH) between boxcoats is required.
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	6-9 Hours

Force Bake Dry Times*

<u>160°F / 70°C</u>	
To Tape	1 Hour

* Flash 60 minutes before baking.

Flash time is critical to control gloss.

<u>Recoat Time:</u> (maximum)	24 Hours
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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.