

CS 7707 Nylon Epoxy Coating

Chem Seal

Technical Bulletin
May, 2003

PRODUCT DESCRIPTION Meets DPM 2389

CS 7707 is a coating suitable for flexible, semi rigid, and rigid substrates for protection against Skydrol*, hydraulic fluid, fuels, oils, salt water, and ozone.

CS 7707 is a two component, chemically curing, nylon epoxy coating which cures at room temperature to a flexible film with exceptional adhesion to a large variety of surfaces. Application of CS 7707 is by spraying, brushing, or dipping.

SURFACE PREPARATION

Surfaces must be clean, dry, and free of dust, oil, wax, grease, loose paint, or corrosion. Cleaning may be facilitated by use of oil free solvent and clean wiping cloth.

MIXING INSTRUCTIONS

Thorough mixing is essential to obtain optimum properties in the cured coating. Mix using the following procedures:

1. Pre-measured Kit: Transfer all of the Part B (Curing Agent) in with the Part A (Base Compound) and mix thoroughly.
2. Smaller amounts: Mix by weights 100 parts of Part A with 6 parts of part B and mix thoroughly.

CURE

Temperature and humidity affect the rate of cure. High temperature and low humidity accelerate the cure and low temperature and high humidity retard it. Heating may be used to accelerate the rate of cure. CS 7707 will achieve full cure under normal conditions (77°F and 50% relative humidity) in 3 to 5 days.

STORAGE LIFE

The storage life of CS 7707 is one year when stored at temperatures below 80°F in the original, unopened container. Some change in application life, viscosity, and curing rate may occur during this period; however, such changes are slight and in no way affect the end performance of the product.

APPLICATION

Apply mixed CS 7707 with conventional methods: Air spray, airless spray, brush, or dipping.

Application Properties	Result:
Application life	8 hours
Tack free time	1/2 hour
Mixing ratio by weight	100:6
Percent solids	24%
Mixed viscosity (#2 Zahn cup)	35 seconds

Chemical resistance for CS-7707 cured 7 days RT

Chemical	Immersion for 7 days 120 F	Immersion for 28 days 120 F
Distilled water	None	Slight blistering
5% Salt Water	None	None
Mil-O-5605 Hydraulic Fluid	None	None
Skydrol 500	None	None
Mil III Fuel	None	None
JP-4 Reference Fluid	None	None
115/145 Aviation Gas	None	None
Mil-O-6081, G.R. 1010	None	None
Mil-O-6082, G.R. 1020	None	None
Mil-L-7808	None	None

Temperature resistance for CS-7707 cured 7 days RT Exposed to elevated temperatures

240 ° F	Gave off odor
290 ° F	Softened
310 ° F	Yellowed
350 ° F	Smoked and darkened
Low temperature flexibility -65° F bent around a 2 1/2" mandrel	
Pass	

Skydrol 500 Registered Trademark of Monsanto Company

CS 7707 Nylon Epoxy Coating

SAFETY

CS 7707 has not been found to have any toxic effect in normal usage. However, because some individuals may be sensitive to chemicals used in the manufacturing of the curing agent, avoid excessive contact. Refer to the Material Safety Data Sheet before using this product.

"Flamemaster supplied aviation fuel tank sealants and coating materials are tested for compatibility with reference fluids and fuels as specified by the applicable specification. Flamemaster does not warranty the performance of fuel tank sealants or coatings subjected to fluids or fuels other than those specified by the applicable specification." "It is the responsibility of the user to determine the suitability for use utilizing the information contained in the applicable specification."

PACKAGING

CS 7707 is packaged in the following Kit sizes:

12 ea. per case Quart Kits
4 ea. per case Gallon Kits

Refer to the applicable Material Safety Data Sheet prior to using this product.

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 user assumes all risk 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 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.