

> FM[®] 99 SURFACING FILM

TECHNICAL DATA SHEET



DESCRIPTION

FM[®] 99 is a modified epoxy-based adhesive film designed for surfacing composite structures. It provides a high quality, ready-to-paint surface finish with no core mark off. Its 250°F/350°F (121°C/177°C) dual cure capability makes FM 99 surfacing film suitable for surfacing a wide variety of composite preregs and materials.

FM 99 surfacing film is supplied as a thin film with a random mat carrier. It can also be supplied unsupported or with various copper, aluminum and other metallic screens and foils for lightning strike applications.

FEATURES & BENEFITS

- 250°F/350°F (121°C/177°C) dual cure capability
- Provides a high quality, ready-to-paint surface finish with no core mark off
- Prevents moisture ingress into the composite structure by eliminating the surface porosity
- Can be combined with lightning strike screen or foil materials for lightning strike applications

SUGGESTED APPLICATIONS

- Co-curing and surfacing of 250°F and 350°F (121°C and 177°C) curing epoxy/graphite, epoxy/glass and epoxy/Kevlar preregs.

CHARACTERISTICS

Table 1 | Handling properties

Weight	0.035 ± 0.0025 psf (175 ± 12.5 g/m ²)
Color	Dark Brown
Carrier	Random polyester mat
Nominal Thickness	0.005 inch (0.13 mm)
Storage Life	12 months at 0°F (-18°C)
Shop Life	6 months at or below 75°F (24°C)

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PROPERTIES

Table 2 | Lap Shear Strength

Property	Cure Cycle	
	60 min. at 250°F (121°C)	60 min. at 350°F (177°C)
Room Temp. Lap Shear Strength, psi (MPa)	2700 (18.62)	3300 (22.75)

Substrate: 0.063 in. (1.6 mm) 2024-T3 alclad

Preparation: FPL etch, no primer

Cure: Press, 40 psi (0.28 MPa)

Table 3 | Shop Life Stability

Condition	Lap Shear Strength psi (MPa)
Initial Lap Shear tested at Room Temp.	3490 (24.06)
Bagged film held for 2 months at 75°F (24°C)	3600 (24.82)
Bagged film held for 4 months at 75°F (24°C)	3480 (23.99)
Bagged film held for 6 months at 75°F (24°C)	3435 (23.68)

Substrate: 0.063 in. (1.6 mm) 2024-T3 alclad

Preparation: FPL etch, no primer

Cure: Press, 40 psi (0.28 MPa)

PRODUCT HANDLING AND SAFETY

Cytec Engineered Materials recommends wearing clean, impervious gloves when working with epoxy resin systems to reduce skin contact and to avoid contamination of the product.

Materials Safety Data Sheets (MSDS) and product labels are available upon request and can be obtained from any Cytec Engineered Materials Office.

DISPOSAL OF SCRAP MATERIAL

Disposal of scrap material should be in accordance with local, state, and federal regulations.

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