

Aerospace Composite Materials

Product Overview



Electroglide® is an epoxy-based composite surfacing film with embedded metal mesh that is designed to protect aircraft composite parts from lightning strikes.

Key Features & Benefits

- Provides protection from lightning strikes
- Provides a high quality paintable surface
- Minimizes surface porosity
- Natural color
- Co-curable with most epoxy prepreg materials
- Improved surface finish on honeycomb core structures
- UV resistant
- Manufactured with E-780-1 resin

Product Forms

- 0.030 psf standard weight surfacing film with woven fiberglass reinforcement
- 0.015 psf Cu mesh
- 0.022 psf Cu mesh
- 0.040 psf Cu mesh
- 0.016 psf Al mesh
- Other metal mesh weights available upon request
- 36" wide standard rolls

Prepreg Storage Life

- Out Life: 30 days @ 75°F
- Shelf Life: 6 months @ 40°F
12 months @ 0°F

Applications

- Primary and Secondary Aircraft Structure Surfaces

Features

- Lightning Strike Protection
- Painted or Unpainted Composite Surfaces
- UV Protection (for unpainted or green structures)
- Zone 1C High Voltage 330 μ m min. painted test panel example
- Available in Natural or Black

Global Availability

For Information about Park's materials:

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www.parkaerospace.com

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Technical Datasheet

Cured Properties				
Color	NAT	NAT or BLK	NAT	NAT
Metal Mesh Type (lb/ft ²)	0.015 Cu	0.022 Cu	0.040 Cu	0.016 Al
Reinforcement Areal Weight (gsm)	47	17	47	47
Prepreg Areal Weight lb/ft ² (gsm)	0.045(220)	0.057(279)	0.070(342)	0.046(225)
Dry Resin Content (%)	47	52	30	46
Resin Flow (260°F, 150 psi) (%)	20	22	1	0.1
Gel time @ 250°F/121°C, minutes	25	62	25	25
Gel time @ 350°F/177°C, minutes	0.8	0.8	0.8	0.8
Volatiles (350°F/177°C, 60 min) (%)	<1.0	< 1.0	<1.0	<1.0
Cured Single Ply Thickness (in)	0.0035	0.0040	0.0065	0.0080

Processing Guidelines

Autoclave/Oven Cure Cycle

- Cure cycle set up based on underlying epoxy prepreg material
- Electroglide® surfacing film can be cured using autoclave or vacuum/oven cure cycles
- Electroglide® surfacing film is co-cure compatible with both 250°F and 350°F epoxy cure cycles. For cure cycles below 250°F or above 365°F contact your local sales and technical service representative or customer service at Park Aerospace Corp. at +1.316.283.6500.

Note: These guidelines are provided to assist Park material users with general recommendations for successful processing. The recommendations are for general review purposes only and process adjustments may be required to achieve optimum results in your specific manufacturing environment.

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a company representative directly.

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Lightning Strike Representative Testing Tested to Zone 1C Requirements



Figure 8 – Panel 032-1

No through hole penetration, Copper side against tool.