L-636AL

Conductive Prepreg, Aluminum-Epoxy

851 W. 18th Street
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Product Data Sheet

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Description

L-636AL is a 250°F (121°C) curing prepreg designed to provide electrical conductivity to the surface of non-metallic structures. The conductive reinforcement is a continuous aluminum alloy. The matrix is a flame retardant, modified epoxy.

Advantages of L-636AL

- No adhesive is required because of the high peel strength and toughness of the L-636AL resin matrix.
- The aluminum screen is nonwoven which enhances electrical continuity and conductivity.
- The aluminum screen is highly uniform in configuration allowing uniform resin flow throughout.
- The L-636AL prepreg has excellent drape and conformability for ease in laying up complex shapes.

Physical Properties

- *Standard Weight:* *0.073 lbs /ft^2 (356 g/m^2)*
- *Standard Thickness:* *0.007" (0.178 mm)*
- *Standard Volatile Content:* *Less than 1.0%*
- *Standard Flow:* *6-24%*
- *Standard Tack:* *Medium*

Physical Properties

- *Up to 31.5" width rolls up to 100 yards long (80 cm x 91 m)*

Shelf Life

- *6 months at 40°F (4°C) or below*
- *30 days at room temperature (70°F or 21°C)*

Flammability

- *Self Extinguishing Per FAR 25.853*

Recommended Cure Cycles

- *40 minutes at 275°F (135°C), or*
- *60 minutes at 250°F (121°C), or*
- *90 minutes at 235°F (113°C).*

Electrical Properties

❖ Customer tests have shown the aluminum screen in L-636AL does provide electrical conductivity for electromagnetic radiation shielding and lightning strike protection. These properties are dependent on the design of the protection system and should be tested by the individual manufacturer for suitability for a particular design.

L-636AL Surfacing Option

❖ A non-woven scrim can be added to one side of the product for enhanced surface finish. It should be noted that this material is dielectric in nature and would need to be removed where direct electrical contact is required for grounding or at overlap joints requiring electrical conductivity.

NOTICE:

Product data and parameters cited in this publication have been obtained in J.D. Lincoln, Inc. laboratories using the materials under carefully controlled conditions. The information, therefore, is believed to be accurate and correctly stated. Data of this type may be considered to be indicative of representative properties obtainable. J.D. Lincoln, Inc. cannot accept responsibility for the misapplication of these products, nor for their use under uncontrolled conditions. Numerical values resulting from the application of this material are dependant on processing details. It is recommended that the user develop his or her own application techniques and generate data consistent with his or her specific application and process.

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