

L-901

Woven Graphite Adhesive Prepreg



851 W. 18th Street
Costa Mesa, CA 92627
(949) 650-8106 Fax:(949) 631-6190
www.jdlincoln.com

Product Data Sheet

Revised: 4/21/09

Description

L-901 is a 250°F (121°C) curing, high peel strength, flame retardant, epoxy prepreg available on a broad range of graphite fabrics or hybrid fabrics. L-901 is intended to be used as a single ply or multiple ply skin for aramid/phenolic honeycomb, fiberglass honeycomb or PVC foam core sandwich panels.

Advantages of L-901

- ❖ No adhesive is required because of the high peel strength and high toughness of the L-901 resin matrix. L-901 can be bonded directly to a variety of core materials.
- ❖ Easy processing is another major advantage. L-901 can be cured with vacuum bag, press or autoclave type cures from 90 minutes at 235°F (113°C) or in just 40 minutes at 275°F (135°C) with contact pressure (235°F (113°C) cure temperatures are recommended for urethane or PVC core).
- ❖ L-901 is also an excellent laminating prepreg when high impact strength and toughness are required.

Physical Properties on 3K Carbon Plain Weave

- *Standard Weight:* 0.067 lbs/ft² (335 g/m²)
- *Standard Resin Content:* 42% by weight
- *Standard Tack:* Slightly tacky on one side
- *Cured Ply Thickness:* 0.007" (0.178 mm)
- *Other Weights, Resin Contents, and Fabrics are Available.*

Flammability

- *Self Extinguishing per FAR part 25.853*

Availability

- *Up to 60" width in rolls up to 100 yards long (152 cm x 91 m)*

Shelf Life

- *6 months at 40°F (4°C) or below*
- *7 days at Room Temperature (70°F or 21°C)*

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).*



851 W. 18th Street
Costa Mesa, CA 92627
(949) 650-8106 Fax: (949) 631-6190
www.jdlincoln.com

L-901

Sandwich Properties*

Core: ¼" cell x 0.004" (6.35 mm cell x 0.10 mm) Aluminum Foil

Facings: 2 plies L-901-3K70P (3K plain weave) each side

- *RT Flatwise Tensile Strength:* 505 PSI (3.5 MPa)
- *RT Sandwich Peel Strength:* 6 in lb/in (27 Nm/m)

*Sandwich peel strength varies with the orientation of fibers directly against the core and test direction.

- ❖ Fibers laid up parallel with the test direction produce minimum strengths.
- ❖ Fibers laid up perpendicular to the test direction produce maximum strengths.
- ❖ L-901 sandwich peel strength ranges from 5-7 in lb/in (22-31 Nm/m).

Mechanical Data

PROPERTY	LAMINATE PROPERTIES		
	50 PSI (0.34 MPa) CURE	VACUUM BAG CURE	TEST METHOD
ULTIMATE TENSILE STRENGTH			
Room Temperature (RT)	82 KSI (566 MPa)	79 KSI (545 MPa)	ASTM D638
160°F (71°C)	69 KSI (476 MPa)	66 KSI (455 MPa)	ASTM D638
TENSILE MODULUS			
Room Temperature (RT)	8.7 MSI (60 GPa)	8.4 MSI (58 GPa)	ASTM D638
160°F (71°C)	8.3 MSI (57 GPa)	8.1 MSI (56 GPa)	ASTM D638
ULTIMATE COMPRESSION STRENGTH			
Room Temperature (RT)	73 KSI (503 MPa)	71 KSI (483 MPa)	ASTM D695
160°F (71°C)	62 KSI (428 MPa)	61 KSI (421 MPa)	ASTM D695
COMPRESSION MODULUS			
Room Temperature (RT)	8.6 MSI (59 MPa)	8.5 MSI (59 MPa)	ASTM D695
160°F (71°C)	8.1 MSI (56 GPa)	8.1 MSI (56 GPa)	ASTM D695
ULTIMATE FLEXURAL STRENGTH			
Room Temperature (RT)	115 KSI (793 MPa)	107 KSI (738 MPa)	ASTM D790
160°F (71°C)	105 KSI (724 MPa)	100 KSI (690 MPa)	ASTM D790
FLEXURAL MODULUS			
Room Temperature (RT)	9.6 MSI (66 GPa)	9.5 MSI (66 GPa)	ASTM D790
160°F (71°C)	9.0 MSI (62 GPa)	8.8 MSI (61 GPa)	ASTM D790
INTERLAMINAR SHEAR STRENGTH			
Room Temperature (RT)	8.5 KSI (59 MPa)	7.4 KSI (51 MPa)	ASTM D2344

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.