

# L-501

## Woven Adhesive Prepreg



851 W. 18<sup>th</sup> Street  
Costa Mesa, CA 92627  
(949) 650-8106 Fax:(949) 631-6190  
[www.jdlincoln.com](http://www.jdlincoln.com)

### Product Data Sheet

Revised: 4/22/09

#### Description

L-501 is a 250°F (121°C) curing, high peel strength, flame retardant, epoxy prepreg available on fiberglass fabrics such as 7781 style or other styles as requested. L-501 is intended to be used as a single ply or multiple ply skin for aramid/phenolic honeycomb, aluminum honeycomb or PVC foam core sandwich panels.

#### Advantages of L-501

- ❖ No adhesive is required because of the high peel strength and high toughness of the L-501 resin matrix. L-501 can be bonded directly to a variety of core materials.
- ❖ Easy processing is another major advantage. L-501 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-501 is also an excellent prepreg when high impact strength and high toughness are required.

#### Physical Properties on 7781 Glass Fabric

- *Standard Weight:* 0.105 lbs/ft<sup>2</sup> (513 g/m<sup>2</sup>)
- *Standard Resin Content:* 42% by weight
- *Standard Tack:* Slightly tacky on one side
- *Cured Ply Thickness:* 0.010" (0.254 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. 18<sup>th</sup> Street  
Costa Mesa, CA 92627  
(949) 650-8106 Fax: (949) 631-6190  
[www.jdlincoln.com](http://www.jdlincoln.com)

L-501

## Sandwich Properties\*

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

Facings: 2 plies L-501-7781 each side

- *RT Flatwise Tensile Strength:* 1,300 PSI (9.0 MPa)
- *RT Sandwich Peel Strength:* 10 in lb/in (44 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-501-7781 sandwich peel strength ranges from 7-13 in lb/in (31-58 Nm/m).

## Mechanical Data

PROPERTY	LAMINATE PROPERTIES		
	25 PSI (0.17 MPa) CURE	VACUUM BAG CURE	TEST METHOD
<b>ULTIMATE TENSILE STRENGTH</b>			
Room Temperature (RT)	64 KSI (441 MPa)	59 KSI (407 MPa)	ASTM D638
160°F (71°C)	54 KSI (372 MPa)	49 KSI (338 MPa)	ASTM D638
RT(WET)	57 KSI (393 MPa)	54 KSI (372 MPa)	ASTM D638
<b>TENSILE MODULUS</b>			
Room Temperature (RT)	3.7 MSI (26 GPa)	3.6 MSI (25 GPa)	ASTM D638
160°F (71°C)	3.5 MSI (24 GPa)	3.4 MSI (23 GPa)	ASTM D638
RT(WET)	3.5 MSI (24 GPa)	3.3 MSI (23 GPa)	ASTM D638
<b>COMPRESSIVE STRENGTH</b>			
Room Temperature (RT)	64 KSI (441 MPa)	60 KSI (414 MPa)	ASTM D695
160°F (71°C)	52 KSI (359 MPa)	44 KSI (303 MPa)	ASTM D695
RT(WET)	56 KSI (386 MPa)	52 KSI (359 MPa)	ASTM D695
<b>COMPRESSIVE MODULUS</b>			
Room Temperature (RT)	3.7 MSI (26 GPa)	3.6 MSI (25 GPa)	ASTM D695
160°F (71°C)	3.6 MSI (25 GPa)	3.5 MSI (24 GPa)	ASTM D695
RT(WET)	3.6 MSI (25 GPa)	3.5 MSI (24 GPa)	ASTM D695
<b>ULTIMATE FLEXURAL STRENGTH</b>			
Room Temperature (RT)	99 KSI (683 MPa)	85 KSI (586 MPa)	ASTM D790
160°F (71°C)	71 KSI (490 MPa)	59 KSI (407 MPa)	ASTM D790
<b>FLEXURAL MODULUS</b>			
Room Temperature (RT)	3.5 MSI (24 GPa)	3.4 MSI (23 GPa)	ASTM D790
160°F (71°C)	3.2 MSI (22 GPa)	3.2 MSI (22 GPa)	ASTM D790
<b>INTERLAMINAR SHEAR</b>			
Room Temperature (RT)	7.2 KSI (50 MPa)	6.4 KSI (44 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.