

# L-925

## Woven Phenolic 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)

Revised: 12/21/06

### Product Data Sheet

#### Description

L-925 is a 275°F (135°C) curing phenolic prepreg with excellent fire smoke and toxicity properties. L-925 is available on 3K70P style graphite fabric or other styles of fabric as requested. L-925 is intended to be used as a single ply or multiple ply skin for aramid/phenolic honeycomb or aluminum honeycomb sandwich panels.

#### Advantages of L-925

- ❖ When used with L-310 phenolic adhesive film, L-925 prepreg facings create sandwich panels with high peel strength and high toughness.
- ❖ Processing of L-925 can be easily adapted to most heated presses or autoclaves.
- ❖ L-925 is also an excellent laminating prepreg when heat resistance is a requirement.
- ❖ When tested per the FAA required OSU test or vertical burns, L-925 will allow the designer to create structure which will meet or exceed these stringent requirements.

#### Physical Properties on 3K70P Style Carbon Fabric

- *Standard Weight:* 0.075 lbs/ft<sup>2</sup> (366 g/m<sup>2</sup>)
- *Standard Resin Content:* 45% by weight
- *Volatile Content:* 4-6%
- *Standard Tack:* Low tack
- *Cured Ply Thickness:* 0.008" (0.203 mm)
- *Other Weights, Resin Contents, and Fabrics are Available.*

#### Availability

- *Standard: 50" wide x 60 yards long (127 cm x 55 m), or*
- *Up to 60" width in rolls up to 100 yards long (152 cm 91 m)*

#### Shelf Life

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

#### Cure Cycles

- *60 minutes at 275°F (135°C), or*
- *120 minutes at 260°F (127°C).*

## Flammability

- *Self Extinguishing per FAR part 25.853*

## Sandwich Properties\*

Core: 1/8" – 3.0 lbs/ft<sup>3</sup> (3.175 mm – 48 kg/m<sup>3</sup>) Aramid/Phenolic

Adhesive: 1 ply L-310 each side

Facings: 2 plies L-925-100 each side

- *RT Flatwise Tensile Strength: 240 PSI (1.7 MPa)*
- *RT Sandwich Peel Strength: 9 in lb/in (40 N/25 mm)*

❖ L-925-100 sandwich peel strength ranges from 7-13 in lb/in (31-58 N/25 mm).

## Mechanical Data

| PROPERTY                             | LAMINATE PROPERTIES    |             |
|--------------------------------------|------------------------|-------------|
|                                      | 45 PSI (0.31 MPa) CURE | TEST METHOD |
| <b>ULTIMATE TENSILE STRENGTH</b>     |                        |             |
| Room Temperature (RT)                | 89 KSI (614 MPa)       | ASTM D638   |
| 160°F (71°C)                         | 87 KSI (600 MPa)       | ASTM D638   |
| RT(WET)                              | 82 KSI (566 MPa)       | ASTM D638   |
| <b>TENSILE MODULUS</b>               |                        |             |
| Room Temperature (RT)                | 9.9 MSI (68 GPa)       | ASTM D638   |
| 160°F (71°C)                         | 9.1 MSI (63 GPa)       | ASTM D638   |
| RT(WET)                              | 9.6 MSI (66 GPa)       | ASTM D638   |
| <b>ULTIMATE COMPRESSION STRENGTH</b> |                        |             |
| Room Temperature (RT)                | 71 KSI (490 MPa)       | ASTM D695   |
| 160°F (71°C)                         | 61 KSI (421 MPa)       | ASTM D695   |
| RT(WET)                              | 56 KSI (386 MPa)       | ASTM D695   |
| <b>COMPRESSION MODULUS</b>           |                        |             |
| Room Temperature (RT)                | 8.5 MSI (59 GPa)       | ASTM D695   |
| 160°F (71°C)                         | 8.4 MSI (58 GPa)       | ASTM D695   |
| RT(WET)                              | 8.4 MSI (58 GPa)       | ASTM D695   |
| <b>ULTIMATE FLEXURAL STRENGTH</b>    |                        |             |
| Room Temperature (RT)                | 124 KSI (855 MPa)      | ASTM D790   |
| 160°F (71°C)                         | 121 KSI (834 MPa)      | ASTM D790   |
| <b>FLEXURAL MODULUS</b>              |                        |             |
| Room Temperature (RT)                | 9.2 MSI (63 GPa)       | ASTM D790   |
| 160°F (71°C)                         | 9.0 MSI (62 GPa)       | ASTM D790   |

### 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.