

L-730

Woven Aramid Adhesive Prepreg



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Product Data Sheet

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Description

L-730 is a 250°F (135°C) curing, high peel strength, flame retardant, epoxy prepreg available on aramid fabrics such as 281 style or other styles as requested. L-730 is intended to be used as a single ply or multiple ply skin for aramid/phenolic honeycomb or PVC foam core sandwich panels.

Advantages of L-730

- ❖ No adhesive is required because of the high peel strength and high toughness of the L-730 resin matrix. L-730 can be bonded directly to a variety of core materials.
- ❖ Easy processing is another major advantage. L-730 can be cured with vacuum bag, press, or autoclave type cures from 90 minutes at 235°F (110°C) or in just 40 minutes at 275°F (135°C) with contact pressure. 235°F (110°C) cure temperatures are recommended for urethane or PVC core.
- ❖ L-730 is an excellent laminating prepreg when high impact strength and high toughness are required.

Physical Properties on 281 Style Aramid Fabric

- *Standard Weight:* 0.070 lbs/ft² (342 g/m²)
- *Standard Resin Content:* 50-55% by weight
- *Volatile Content:* Less than 2.0%
- *Standard Tack:* Medium
- *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 60 yards long (152 cm x 55 m)*

Shelf Life

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

Cure Cycle

- *60 minutes at 250-275°F (121-135°C)*



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Sandwich Properties*

Core: 1/8" cell - 3.0 lb/ft³ (6.35 mm cell – 48 kg/m³) aramid phenolic honeycomb

Facings: 2 plies L-730-281K each side

- *RT Flatwise Tensile Strength:* 350 PSI (2.4 MPa)
- *RT Sandwich Peel Strength:* 75 in lb/in (333 Nm/m)

- ❖ *Sandwich peel strength varies with 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.

Mechanical Data

Property	Laminate Properties								Test Method
	281K		285K		220K		4560 UD		
	KSI	MPa	KSI	MPa	KSI	MPa	KSI	MPa	
Tensile Strength Room Temperature (RT)	83	572	75	517	71	490	165	1138	ASTM D638
Tensile Modulus Room Temperature (RT)	5.4x10 ³	37x10 ³	3.8x10 ³	26x10 ³	4.4x10 ³	30x10 ³	8.5x10 ³	59x10 ³	ASTM D638
Compressive Strength RT, 70°F, 50% RH	27	186	25	172	25	172	34	234	ASTM D695
RT, 170°F, 98% RH	23	159	-	-	-	-	30	207	
RT, Hydraulic Fluid	19	131	-	-	-	-	33	228	
Flexural Strength RT, 70°F, 50% RH	63	434	58	400	46	317	78	538	ASTM D790
RT, 170°F, 98% RH	46	317	-	-	-	-	68	469	
RT, Hydraulic Fluid	46	317	-	-	-	-	77	531	
Flexural Modulus RT, 70°F, 50% RH	3.4x10 ³	23x10 ³	2.6x10 ³	18x10 ³	2.7x10 ³	19x10 ³	6.3x10 ³	43x10 ³	ASTM D790
RT, 170°F, 98% RH	3.4x10 ³	23x10 ³	-	-	-	-	3.1x10 ³	21x10 ³	
RT, Hydraulic Fluid	2.9x10 ³	20x10 ³	-	-	-	-	5.8x10 ³	40x10 ³	
Interlaminar Shear Strength RT, 70°F, 50% RH	6.1	42	6.0	41	5.8	40	12.2	84	ASTM D2344
RT, 170°F, 98% RH	3.4	23	-	-	-	-	8.8	61	
RT, Hydraulic Fluid	4.5	31	-	-	-	-	11.5	79	

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.