

L-930

Flame Retardant Epoxy Carbon Prepreg



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Product Data Sheet

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Description

L-930 is an adhesive prepreg based on toughened flame retardant, epoxy resin reinforced with carbon fibers.

Advantages of L-930

Finally, a true adhesive prepreg for building sandwich panels with carbon reinforced facings. L-930 delivers high peel strength from a toughened matrix for panel applications where the designer is seeking a higher degree of damage tolerance.

- ❖ L-930 is extremely flame retardant which allows the designer to use L-930 in a wide variety of structural applications.
- ❖ Available in unidirectional and woven forms, the designer can tailor fiber orientation to the load paths.

Physical Properties on 3K Carbon Plain Weave

- *Standard Weight:* 0.072 lbs/ft² (352 g/m²)
- *Standard Resin Content:* 45% by weight
- *Volatile Content:* 3% by weight
- *Standard Tack:* Medium
- *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*
- *14 days at Room Temperature (70°F or 21°C)*

Cure Cycle

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

Sandwich Properties*

Core: Aramid Phenolic, 3 lbs/ft³, 1/8" cell (48 kg/m³, 3.175 mm)

Facings: 1 ply L-930-100 (3K carbon plain weave) each side

- *RT Flatwise Tensile Strength:* Core Failure
- *RT Sandwich Peel Strength:* 12 in lb/in (53 Nm/m)
- *Sandwich Flexural Strength:* 125 lbs (556 N)

- ❖ *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	
	VACUUM BAG CURE	TEST METHOD
ULTIMATE TENSILE STRENGTH		
-76°F (-60°C)	97 KSI (669 MPa)	ASTM D3039
Room Temperature (RT)	97 KSI (669 MPa)	ASTM D3039
RT (WET)	93 KSI (641 MPa)	ASTM D3039
TENSILE MODULUS		
-76°F (-60°C)	10.8 MSI (74 GPa)	ASTM D3039
Room Temperature (RT)	8.9 MSI (61 GPa)	ASTM D3039
RT (WET)	8.8 MSI (61 GPa)	ASTM D3039
ULTIMATE COMPRESSION STRENGTH		
-76°F (-60°C)	105 KSI (724 MPa)	SACMA SRM 1R
Room Temperature (RT)	92 KSI (634 MPa)	SACMA SRM 1R
RT (WET)	86 KSI (593 MPa)	SACMA SRM 1R
COMPRESSION MODULUS		
-76°F (-60°C)	9.6 MSI (66 GPa)	SACMA SRM 1R
Room Temperature (RT)	8.3 MSI (57 GPa)	SACMA SRM 1R
ULTIMATE FLEXURAL STRENGTH		
Room Temperature (RT)	118 KSI (814 MPa)	ASTM D6272
FLEXURAL MODULUS		
Room Temperature (RT)	-	ASTM D6272
INTERLAMINAR SHEAR STRENGTH		
Room Temperature (RT)	10.8 KSI (74 MPa)	ASTM D2344
RT (WET)	7.0 KSI (48 MPa)	ASTM D2344
FLATWISE TENSILE		
Room Temperature (RT)	380 PSI (2.6 KPa)	ASTM C297

NOTICE:

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