

L-525

Woven Phenolic Prepreg



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Product Data Sheet

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Description

L-525 is a 275°F (135°C) curing phenolic prepreg with excellent fire smoke and toxicity properties. L-525 is available on 7781 style glass fabric or other styles of fabric as requested. L-525 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-525

- ❖ When used with L-310 phenolic adhesive film, L-525 prepreg facings create sandwich panels with high peel strength and high toughness.
- ❖ Processing of L-525 can be easily adapted to most heated presses or autoclaves.
- ❖ When tested per the FAA required OSU test and vertical burns, L-525 will allow the designer to create structure which will meet or exceed these stringent requirements.

Physical Properties on 7781 Glass Fabric

- *Standard Weight:* 0.098 lbs/ft² (479 g/m²)
- *Standard Resin Content:* 38% by weight
- *Volatile Content:* 1-4%
- *Standard Tack:* Low tack
- *Cured Ply Thickness:* 0.010" (0.254 mm)
- *Other Weights, Resin Contents, and Fabrics are Available.*

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 Cycles

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

Flammability

- *Self Extinguishing per FAR part 25.853*



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Sandwich Properties*

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

Adhesive: 1 ply L-310 each side

Facings: 2 plies L-525-7781 each side

- *RT Flatwise Tensile Strength:* 910 PSI (6.3 MPa)
- *RT Sandwich Peel Strength:* 9 in lb/in (40 Nm/m)

- ❖ *Sandwich peel strength varies with the orientation of the fibers directly against the core and the 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-525-7781 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	TEST METHOD
ULTIMATE TENSILE STRENGTH		
Room Temperature (RT)	52 KSI (359 MPa)	ASTM D638
160°F (71°C)	50 KSI (345 MPa)	ASTM D638
RT(WET)	45 KSI (310 MPa)	ASTM D638
TENSILE MODULUS		
Room Temperature (RT)	3.5 MSI (24 GPa)	ASTM D638
160°F (71°C)	3.5 MSI (24 GPa)	ASTM D638
RT(WET)	3.4 MSI (23 GPa)	ASTM D638
ULTIMATE COMPRESSION STRENGTH		
Room Temperature (RT)	59 KSI (407 MPa)	ASTM D695
160°F (71°C)	56 KSI (386 MPa)	ASTM D695
RT(WET)	54 KSI (372 MPa)	ASTM D695
COMPRESSION MODULUS		
Room Temperature (RT)	3.5 MSI (24 GPa)	ASTM D695
160°F (71°C)	3.5 MSI (24 GPa)	ASTM D695
RT(WET)	3.5 MSI (24 GPa)	ASTM D695
ULTIMATE FLEXURAL STRENGTH		
Room Temperature (RT)	72 KSI (497 MPa)	ASTM D790
160°F (71°C)	70 KSI (483 MPa)	ASTM D790
FLEXURAL MODULUS		
Room Temperature (RT)	3.5 MSI (24 GPa)	ASTM D790
160°F (71°C)	3.2 MSI (22 GPa)	ASTM D790

NOTICE:

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