

L-575

Woven Prepreg, Low Energy Cure



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Product Data Sheet

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Description

L-575 is a 175°F (79°C) curing, high peel strength, flame retardant, epoxy prepreg available on fiberglass fabrics such as 7781 style or other styles as requested. L-575 is intended to be used as a single ply or multiple ply skin for foam-cored panels or balsa-cored panels.

Advantages of L-575

- ❖ No adhesive is required because of the high peel strength and high toughness of the L-575 resin matrix. L-575 can be bonded directly to a variety of core materials.
- ❖ Easy processing is another major advantage. L-575 can be cured with a vacuum bag, press, or autoclave type cures from 8 hours at 160°F (71°C) or in just 30 minutes at 250°F (121°C) with contact pressure (175°F (79°C) cure temperatures are suggested for urethane, balsa or PVC core).
- ❖ L-575 is also an excellent laminating prepreg when high impact strength and high toughness are required.

Physical Properties on 7781 Glass Fabric

- *Standard Weight:* 0.105 lbs/ft² (512 g/m²)
- *Standard Resin Content:* 42% by weight
- *Standard Tack:* High tack on one side
- *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)
- 7 days at room temperature (75°F or 24°C)

Cure Cycles

- 8 hours at 160°F (71°C), or
- 6 hours at 175°F (79°C), or
- 3 hours at 200°F (93°C), or
- 30 minutes at 250°F (121°C).

Flammability

- Self Extinguishing per FAR part 25.853

Sandwich Properties*

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

Facings: 2 plies L-575-7781 each side

- RT Flatwise Tensile Strength: 1,300 PSI (9.0 MPa)
 - RT Sandwich Peel Strength: 10 in lb/in (45 N/25 mm)
- ❖ *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-575-7781 sandwich peel strength ranges from 7-13 in lb/in (31-58 N/25 mm).

Mechanical Data

PROPERTY	LAMINATE PROPERTIES		
	25 PSI (0.172 MPa) CURE	VACUUM BAG CURE	TEST METHOD
ULTIMATE TENSILE STRENGTH			
Room Temperature	60,000 PSI (414 MPa)	55,000 PSI (379 MPa)	ASTM D638
160°F (71°C)	50,000 PSI (345 MPa)	45,000 PSI (310 MPa)	ASTM D638
Room Temperature (WET)	53,000 PSI (366 MPa)	50,000 PSI (345 MPa)	ASTM D638
TENSILE MODULUS			
Room Temperature	3.7 MSI (25.5 GPa)	3.6 MSI (24.8 GPa)	ASTM D638
160°F (71°C)	3.5 MSI (24.1 GPa)	3.4 MSI (23.4 GPa)	ASTM D638
Room Temperature (WET)	3.5 MSI (24.1 GPa)	3.3 MSI (22.7 GPa)	ASTM D638
ULTIMATE COMPRESSIVE STRENGTH			
Room Temperature	62,000 PSI (428 MPa)	58,000 PSI (400 MPa)	ASTM D695
160°F (71°C)	50,000 PSI (345 MPa)	42,000 PSI (290 MPa)	ASTM D695
Room Temperature (WET)	54,000 PSI (372 MPa)	50,000 PSI (345 MPa)	ASTM D695
COMPRESSIVE MODULUS			
Room Temperature	3.7 MSI (25.5 GPa)	3.6 MSI (24.8 GPa)	ASTM D695
160°F (71°C)	3.6 MSI (24.8 GPa)	3.5 MSI (24.1 GPa)	ASTM D695
Room Temperature (WET)	3.6 MSI (24.8 GPa)	3.5 MSI (24.1 GPa)	ASTM D695
ULTIMATE FLEXURAL STRENGTH			
Room Temperature	88,000 PSI (607 GPa)	80,000 PSI (551 MPa)	ASTM D790
160°F (71°C)	60,000 PSI (414 GPa)	54,000 PSI (372 MPa)	ASTM D790
FLEXURAL MODULUS			
Room Temperature	3.5 MSI (24.1 GPa)	3.4 MSI (23.4 GPa)	ASTM D790
160°F (71°C)	3.2 MSI (22.1 GPa)	3.2 MSI (22.1 GPa)	ASTM D790
INTERLAMINAR SHEAR			
Room Temperature (RT)	6,200 PSI (42.8 MPa)	5,400 PSI (37.2 MPa)	ASTM D2344

NOTICE:

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