

# L-556

## Solution Coated Epoxy Prepreg, Heat Resistant



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### Product Data Sheet

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#### Description

L-556 is a heat resistant modified epoxy prepreg. It is a versatile product that the designer may use for structural or general purpose applications.

#### Advantages of L-556

- ❖ L-556 was designed for end users that require a structural prepreg, but have temperature requirements above most performance envelopes of the classical laminating epoxy prepregs.
- ❖ L-556 is especially suited for long term exposure to temperatures as high as 350°F (177°C).
- ❖ Low temperature cures allow the production of high temperature parts on low cost tools.

#### Physical Properties on 7781 Glass Fabric

- *Standard Weight:* 0.100 lbs/ft<sup>2</sup> (488 g/m<sup>2</sup>)
- *Standard Resin Content:* 38% by weight
- *Volatile Content:* Less than 1.5% by weight
- *Standard Tack:* Medium
- *Cured Ply Thickness:* 0.010" (0.254 mm)
- *Other Weights, Resin Contents, and Fabrics are Available.*

#### Availability

- 38", 50", or 60" wide and 60 yards long (97 cm, 127 cm, 152 cm x 55 m)
- Many fabrics and styles are available in up to 60" width in rolls up to 100 yards long (152 cm x 91 m).

#### Shelf Life

- 12 months at 0°F (-18°C)
- 6 months at 40°F (4°C)
- 14 days at Room Temperature (70°F or 21°C)

## Cure Cycles

- 90 minutes at 350°F (177°C), or
- 120 minutes at 300°F (149°C), or
- 180 minutes at 275°F (135°C), or
- 240 minutes at 235°F (113°C).
- Typical Cycle: RT to 265 +0/-10°F (129 +0/-6°C) in 20-30 minutes, hold at 265 +0/-10°F (129 +0/-6°C) for 20-25 minutes, raise to 350 +0/-10°F (177 +0/-6°C) in 20-30 minutes, hold at 350 +0/-10°F (177 +0/-6°C) for 120 ± 10 minutes. This cure is in an autoclave, blanket press, or platen press at 45-85 PSI (0.31-0.59 MPa).

## Mechanical Data

PROPERTY	LAMINATE PROPERTIES		
	VACUUM BAG CURE	40 PSI (0.28 MPa) CURE	TEST METHOD
<b>ULTIMATE TENSILE STRENGTH</b>			
Room Temperature (RT)	61 KSI (421 MPa)	63 KSI (434 MPa)	ASTM D638
350°F (177°C)	48 KSI (331 MPa)	50 KSI (345 MPa)	ASTM D638
<b>TENSILE MODULUS</b>			
Room Temperature (RT)	3.0 MSI (21 GPa)	3.2 MSI (22 GPa)	ASTM D638
<b>COMPRESSIVE STRENGTH</b>			
Room Temperature (RT)	83 KSI (572 MPa)	65 KSI (448 MPa)	ASTM D695
350°F (177°C)	40 KSI (276 MPa)	53 KSI (366 MPa)	ASTM D695
<b>COMPRESSIVE MODULUS</b>			
Room Temperature (RT)	--	4.4 MSI (30 GPa)	ASTM D695
350°F (177°C)	--	3.6 MSI (25 GPa)	ASTM D695
<b>ULTIMATE FLEXURAL STRENGTH</b>			
Room Temperature (RT)	102 KSI (703 MPa)	103 KSI (710 MPa)	ASTM D790
350°F (177°C)	68 KSI (469 MPa)	82 KSI (566 MPa)	ASTM D790
420°F (216°C)	55 KSI (379 MPa)	59 KSI (407 MPa)	ASTM D790
500°F (260°C)	--	25 KSI (172 MPa)	ASTM D790
<b>FLEXURAL MODULUS</b>			
Room Temperature (RT)	3.4 MSI (23 GPa)	3.5 MSI (24 GPa)	ASTM D790
350°F (177°C)	--	3.4 MSI (23 GPa)	ASTM D790

**CAUTION:** Do not build any section of L-556 over 0.250" (6.35 mm) thick. Please contact the J.D. Lincoln, Inc. company for special curing requirements for parts thicker than 0.250" (6.35 mm).

### NOTICE:

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