



86 Providence Rd · Millbury, MA 01527  
( 800 ) 225-7725 · www.lewcott.com

## EP350 Epoxy Prepreg

EP350 is a high temperature curing, modified epoxy. It is self extinguishing, passing the 60 Second Vertical Ignition Test listed in FAR 25.853. EP350 offers an excellent combination of toughness and high glass transition temperature. EP350 is capable of curing at temperatures as low as 275°F and is capable of a free standing post cure. Post cured EP350 displays a 300°F Tg.

### Mechanical Properties of EP350-7781

#### Room Temperature Testing

Tensile Strength, psi	79,000
Tensile Modulus, psi	4,000,000
Flexural Strength, psi	105,000
Flexural Modulus, psi	3,900,000
Compressive Strength, psi	72,000
Compressive Modulus, psi	3,600,000
Interlaminar Shear Strength, psi	4,800
In Plane Shear Strength, psi	15,900
In Plane Shear Strength, psi	8,900
( at 185° F, 87% relative humidity, saturation at 1.1% moisture pick up )	

#### Room Temperature Testing following a 24 hour Water Boil

Tensile Strength, psi	69,000
Tensile Modulus, psi	4,000,000
Flexural Strength, psi	97,000
Flexural Modulus, psi	3,750,000
Compressive Strength, psi	72,000
Compressive Modulus, psi	4,400,000

#### Exposed to ½ Hour at 160°F and Tested at 160°F

Tensile Strength, psi	53,000
Tensile Modulus, psi	4,300,000
Flexural Strength, psi	76,000
Flexural Modulus, psi	3,600,000
Compressive Strength, psi	61,000
Compressive Modulus, psi	4,100,000
Interlaminar Shear Strength, psi	6,400

**NOTE:** EP350 Prepreg is wound with a polyethylene film interliner for easy release. The rolls are sealed in polyethylene film bags to protect prepreg from moisture and other contaminants. The bags should remain sealed while the prepreg is under refrigeration and only removed when the prepreg has had sufficient time to warm to room temperature. When not in use, the prepreg should be returned to refrigerated storage. Care should be exercised to limit out-time of the prepreg in order to insure maximum shelf life. Torn bags should be replaced. The data presented has been developed under controlled manufacturing and test conditions and is considered accurate. No warranty is expressed or implied regarding the accuracy of these data or the use of this product. It is the responsibility of the end user to determine suitability for use.  
Date: 05/01/06



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### Properties of EP350-6.2 oz, 2 x 2 Twill Carbon

Tensile Strength, psi	85,000
Tensile Modulus, psi	9,200,000
Flexural Strength, psi	102,000
Flexural Modulus, psi	8,800,000
Compressive Strength, psi	90,000
Compressive Modulus, psi	9,000,000
Short Beam Shear Strength, psi	10,800

### Thermal Properties of EP350-7781

Tg (cured 2 hours at 350°F)	300° F
Tg (cured one hour at 275°F, followed by a 2 hour 320°F postcure)	300° F

### Process Information - EP350

#### Vacuum Bag in Autoclave

Draw Vacuum and apply 45 – 70 psi autoclave pressure  
5°F/Minute Ramp to 240°F (Optional, Part Temperature)  
Hold at 240°F for 30 to 45 Minutes (Optional)  
5°F/Minute Ramp to 345°F - 355°F (Part Temperature)  
Hold at 345°F - 350°F for 120 Minutes  
Cool to Less Than 150°F at 3 to 5°F/Minute  
Release Pressure/Vacuum and Demold

#### Vacuum Bag in Oven

Draw Vacuum  
5°F/Minute Ramp to 240°F (Part Temperature)  
Hold at 240°F for 30 to 45 Minutes  
5°F/Minute Ramp to 345°F - 355°F (Part Temperature)  
Hold at 345°F - 355°F for 120 Minutes  
Cool to Less Than 150°F at 3 to 5°F/Minute  
Release Pressure/Vacuum and Demold

#### Press Molding

350°F for 120 Minutes at 50 - 70 psi

### Recommended Storage

- Room Temperature (77° F)	Four (4) Weeks
- 40° F	Six (6) Months
- 0° F	Twelve (12) Months

### Qualifications

EP350-7781	Lockheed STW22-401 Rev D
EP350-120	Six (6) Months

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