# Aerospace Composite Materials

# **E-717 Epoxy Prepregs**

Park's E-717 prepregs are designed for flat or mildly contoured sandwich panels and laminates that require fire retardance and high stiffness and strength. E-717 prepregs offer several features and benefits, including significant part cost reduction and performance enhancement possibilities over "first generation" rubber modified epoxy prepregs.

### **Key Features & Benefits**

- Dry and boardy / No poly required
- Store at room temperature (75°F) for up to 3 months
- Excellent sandwich adhesive properties
- Short cycle time
- Meets FAR 25.853 burn requirements

### **Product Forms**

- Available on 7581 or other types of fabrics
- Solution coated fabrics up to 60 inches wide

### **Product Overview**

### **Applications / Qualifications**

- Industrial Applications
- Recreational Applications

#### For Information about Park's materials:

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### **Mechanical Properties**

Test Method	Test Condition °F	E-717 / 7581*
Tensile Strength (Ksi)	RT Dry	73
ASTM-D-638	160°F	61
Tensile Modulus (Msi)	RT Dry	3.8
ASTM-D-638	160°F	3.7
Compressive Strength (Ksi)	RT Dry	71
ASTM-D-695	160°F	55
Compressive Modulus (Msi)	RT Dry	4.1
ASTM-D-695	160°F	3.9
Interlaminar Shear	RT Dry	8.6
ASTM-D-2344	160°F	5.5
Long Beam Flexure (Psi) ASTM-C-393	RT Dry	146
Climbing Drum Peel (in – Ib/in) ASTM-D-1781	RT Dry	12.5

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a Park representative directly. Park reserves the right to change these typical values as a natural process of refining our testing equipment and techniques.



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## **Processing Guidelines**

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### **Prepreg Storage Life**

Out Life: 90 days @ 75°F Shelf Life: 12 months @ 0°F <u>Note</u>: The following guidelines are provided to assist Park material users with general recommendations for successful processing. The recommendations are for general review purposes only and process adjustments may be required to achieve optimum results in your specific manufacturing environment.

### Vacuum Bag / Oven Cure Cycle

- Apply 24"Hg vacuum (minimum) for 1 hour before beginning heat cycle
- Raise product temperature from RT to 250-260°F at 5 9°F/min
- Hold product at cure temperature for 90 120 minutes
- Cool product to 150°F at no more than 8°F/min

### **Pressure Cured**

- 1. At 325°F at minimum 40 psi pressure for 30 minutes, in hot/out hot.
- 2. At 265°F at minimum 40 psi pressure for 60 minutes, in hot/out hot.

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