

### P-650R Polyester Prepregs

Park's P-650R is a non-styrenated/low VOC polyester resin system that has been designed for optical clarity. P-650 exhibits good mechanical properties up to 250°F.

#### Key Features & Benefits

- Non-styrenated / low VOC resin system
- Meets requirements of MIL-R-7575C, grades A and B, class 2
- Good optical clarity for aircraft lighting, etc.

#### Product Forms

- Available on a wide variety of reinforcements
- Solution coated fabrics up to 60 inches wide
- Compatible with Autoclave, Vacuum Bag/Oven or Press Molding processes

#### Prepreg Storage Life

- Out Life: 30 days @ 75°F
- Shelf Life: 8 months @ 40°F  
12 months @ 0°F

#### Autoclave Cure Cycle

- Apply 24" Hg vacuum (minimum) for 1 hour before beginning heat cycle
- Apply 75 psi autoclave pressure, vent vacuum at 15 – 20 psi
- Heat at 2 – 5 °F/min from room temperature to 245 -255°F
- Cure product at 245 -255°F for 90 minutes
- Cool to 150°F at no more than 8°F/min prior to releasing autoclave pressure

**Note:** These 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.

#### Applications / Qualifications

- Aircraft lighting
- Wing-light lenses
- Aircraft floor lighting

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

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# Aerospace Composite Materials

## P-650R Polyester Prepregs

### Technical Datasheet

#### Prepreg Physical Properties

Reinforcement	7781 E-glass
Fabric Area Weight (gsm)	300
Prepreg Resin Content (%)	38 – 44
Volatiles (220°F, 8 min) (%)	1.0 max
Flow (275°F, 15 psi) (%)	10 – 11
Gel Time (sec)	29

#### Laminate Physical Properties

Reinforcement	7781 E-glass
Hardness (Barcol)	76
Specific Gravity	1.88
Cured Ply Thickness (in)	0.010
Tensile Strength, 0° (Ksi)	
75°F Dry	68
75°F Wet*	61
ASTM-D-638 Type 1	
Tensile Modulus, 0° (Msi)	
75°F Dry	3.7
75°F Wet*	3.6
ASTM-D-638 Type 1	
Compressive Strength (Ksi)	
75°F Dry	61
75°F Wet*	57
ASTM-D-695	
Compressive Modulus (Msi)	
75°F Dry	4.0
75°F Wet*	3.7
ASTM-D-695	
Flexural Strength (Ksi)	
75°F Dry	97
75°F Wet*	85
160°F Dry	72
ASTM-D-790	
Flexural Modulus (Msi)	
75°F Dry	3.3
75°F Wet*	3.3
160°F Dry	3.1
ASTM-D-790	

\* Wet Condition: 2 hour water boil

All test data provided are typical values and not intended to be specification values. For review of critical specification tolerances, please contact a company representative directly.

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