

# Aerospace Composite Materials

## Product Overview

### E-763 Epoxy Prepregs

Park's E-763 is a modified epoxy system with a nominal 250°F cure temperature. E-763 provides a transparent resin surface on the finished part which gives finished part surfaces a cosmetically attractive finish.

#### Key Features & Benefits

- Good low pressure consolidation
- Excellent handling characteristics and out-time
- Clear surface finish for excellent cosmetic appearance on finished parts
- 250°F cure epoxy system
- Flame retardant, meets the requirements of US D.O.T. FMVSS 302

#### Product Forms

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

#### Prepreg Storage Life

- Out Life: 30 days @ 75°F
- Shelf Life: 6 months @ 0°F

#### Vacuum/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 60 – 90 minutes
- Cool product to 150°F at no more than 8°F/min

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

- Specialty
- Recreational
  
- US D.O.T. FMVSS 302 Compliant

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

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## E-763 Epoxy Prepregs

### Prepreg and Laminate Physical Properties

Reinforcement	7781 E-Glass	3K PW Carbon	3K 2x2 Twill Carbon
Prepreg Resin Content (%)	36 – 44	38 – 44	38 – 44
Resin Flow (275°F, 15 psi) (%)	7 -21	5 -15	5 – 15
Volatiles (275°F, 8 min) (%)	1.5 max	1.5 max	1.5 max
Gel Time (min)	2 – 6	2 - 6	2 - 6

### Laminate Mechanical Properties

Reinforcement	7781 E-Glass	3K PW Carbon	3K 2x2 Twill Carbon
<b>Cure Cycle</b>	Oven Cure 250°F 90 min	Oven Cure 250°F 90 min	Oven Cure 275°F 120 min
<b>Tensile Strength, 0° (ksi)</b> 75°F Dry 160°F Dry ASTM-D-3039	62 --	98 --	109 --
<b>Tensile Modulus, 0° (Msi)</b> 75°F Dry 160°F Dry ASTM-D-3039	3.7 --	9.0 --	9.1 --
<b>Compressive Strength (ksi)</b> 75°F Dry 160°F Dry ASTM-D-695	75 60	84 --	83 --
<b>Compressive Modulus (Msi)</b> 75°F Dry 160°F Dry ASTM-D-695	3.7 3.4	8.9 --	9.7 --
<b>Flexural Strength (ksi)</b> 75°F Dry 160°F Dry ASTM-D-790	96 86	134 --	134 --
<b>Flexural Modulus (Msi)</b> 75°F Dry 160°F Dry ASTM-D-790	3.4 3.4	8.8 --	6.8 --
<b>Short-Beam Shear Strength (ksi)</b> 75°F Dry 160°F Dry ASTM-D-2344	9.1 7.3	9.2 --	7.6 --

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*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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