

Aerospace Composite Materials

E-718 Epoxy Prepregs

Park's E-718 is a modified epoxy resin system. E-718 is designed to provide excellent mechanical properties at low cure pressures.

Key Features & Benefits

- Good low pressure consolidation
- Excellent handling characteristics and out-time
- High tack, high flow prepreg
- 250°F cure epoxy system
- Good mechanical properties at high service temperatures

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

Product Overview

Applications / Qualifications

- Industrial Applications
- Recreational Applications

For Information about Park's materials:

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Prepreg and Laminate Physical Properties

Reinforcement	T-700 24K Uni-Tape	E-Glass Uni-Tape	G30 – 700 Uni-Tape
Fabric Area Weight (gsm)	340	300	150
Prepreg Resin Content (%)	32 – 38	30 – 36	32 – 38
Resin Flow (225°F, 50 psi) (%)	6 – 20	6 – 20	8 – 22
Volatiles (275°F) (% max)	< 1.0	<1.0	<1.0
Gel Time (min)	2 - 8	2 – 8	2 – 8
Cured Ply Thickness (in)	0.012	0.009	0.006
Tg (Dry, by DMA)	165°C / 330°F		

Processing Guidelines

Prepreg Storage Life

- Tack Life: 14 days @ 75°F
- Out Life: 30 days @ 75°F
- Shelf Life: 6 months @ 0°F

Note: 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/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

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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Laminate Mechanical Properties

Reinforcement	T-700 24K Uni-Tape	E-Glass Uni-Tape	G30 – 700 Uni-Tape
Tensile Strength, 0° (Ksi) 75°F Dry 180°F Dry ASTM-D-3039	340 337	116 107	341 --
Tensile Modulus, 0° (Msi) 75°F Dry 180°F Dry ASTM-D-3039	20.8 21.6	5.8 6.5	20.1 --
Compressive Strength (Ksi) 75°F Dry 180°F Dry ASTM-D-695	222 177	134 119	223 --
Compressive Modulus (Msi) 75°F Dry 180°F Dry ASTM-D-695	18.0 18.0	6.3 --	18.7 --
Flexural Strength (Ksi) 75°F Dry 180°F Dry ASTM-D-790	233 201	170 --	-- --
Flexural Modulus (Msi) 75°F Dry 180°F Dry ASTM-C-790	15.6 15.9	6.5 --	-- --
Short-Beam Shear Strength (Ksi) 75°F Dry 180°F Dry ASTM-D-2344	12.9 9.7	13.6 --	13.7 --

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