

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

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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