

Park Electrochemical Nelcote® E-765 Epoxy Prepreg, T300 3K PW Reinforced

Category : Polymer , Thermoset , Epoxy

Material Notes:

Nelcote® E-765 is a tough 250°F cure prepreg system designed to replace 350°F cure systems in aircraft structural applications. FAA-approved Design Allowable Databases are available upon request. Key Features and Benefits: Designed to replace first generation 350°F (176°C) cure systems. Wide cure temperature process window of 250°F to 350°F Exhibits very low void content, i.e.,

Order this product through the following link:

http://www.lookpolymers.com/polymer_Park-Electrochemical-Nelcote-E-765-Epoxy-Prepreg-T300-3K-PW-Reinforced.php

| Physical Properties | Metric | English | Comments |
|---------------------|-------------|----------|----------------|
| Volatiles | <= 1.5 % | <= 1.5 % | |
| Thickness | 203 microns | 8.00 mil | cured, per ply |

| Mechanical Properties | Metric | English | Comments |
|-------------------------|-----------------------|-----------------------|---|
| Tensile Strength, Yield | 7.150 MPa | 1037 psi | Flatwise (sandwich); ASTM C297 |
| | 621 MPa | 90000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 641 MPa | 93000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 641 MPa | 93000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| | 662 MPa | 96000 psi | 0° Direction, Wet; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| Tensile Modulus | 54.5 GPa | 7900 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 55.2 GPa | 8000 ksi | 0° Direction, Wet; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 56.5 GPa | 8200 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 58.6 GPa | 8500 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| Compressive Strength | 393 MPa | 57000 psi | Wet; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |

| Mechanical Properties | Metric | English | Comments |
|-----------------------|-----------------------|-----------------------|--|
| | 53.1 MPa | 7700 psi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 662 MPa | 96000 psi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 752 MPa | 109000 psi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| Compressive Modulus | 51.7 GPa | 7500 ksi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 51.7 GPa | 7500 ksi | Wet; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 53.1 GPa | 7700 ksi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 53.8 GPa | 7800 ksi | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| Shear Strength | 35.2 MPa | 5100 psi | Short-Beam, Wet; Vacuum/Oven Cured; ASTM D2344 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 57.9 MPa | 8400 psi | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 71.7 MPa | 10400 psi | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 74.5 MPa | 10800 psi | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| | 84.1 MPa | 12200 psi | Beam, V-Notched; Wet; Vacuum/Oven Cured; ASTM D5379-93 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 98.6 MPa | 14300 psi | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 130 MPa | 18900 psi | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 145 MPa | 21100 psi | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |

| Thermal Properties | Metric | English | Comments |
|---------------------------|--------|---------|----------|
| Glass Transition Temp, Tg | 165 °C | 329 °F | Dry; DMA |

| Processing Properties | Metric | English | Comments |
|-----------------------|-----------------------|-----------------------|----------|
| Gel Time | 5.00 min | 5.00 min | |
| | @Temperature 135 °C | @Temperature 275 °F | |
| Shelf Life | 6.00 Month | 6.00 Month | |
| | @Temperature -17.8 °C | @Temperature 0.000 °F | |
| | 6.00 Month | 6.00 Month | |
| | @Temperature -17.8 °C | @Temperature 0.000 °F | |

| Descriptive Properties | Value | Comments |
|--|--------|-----------------------|
| Climbing Drum Peel (in-lb/3in) | 4.3 | ASTM D1781; Bag Side |
| | 4.3 | ASTM D1781; Tool Side |
| Fabric Area Weight (g/m ²) | 193 | |
| Prepreg Resin Content (%) | 35-41 | |
| Resin Flow (%) | 9-21 | 275°F, 15psi |
| Tack | Medium | |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China