

Park Electrochemical Nelcote® E-765 Epoxy Prepreg, T700 Uni Tape 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-T700-Uni-Tape-Reinforced.php

| Physical Properties | Metric | English | Comments |
|---------------------|-------------|----------|----------------|
| Volatiles | <= 1.0 % | <= 1.0 % | |
| Thickness | 152 microns | 6.00 mil | cured, per ply |

| Mechanical Properties | Metric | English | Comments |
|-------------------------|-----------------------|-----------------------|---|
| Tensile Strength, Yield | 2300 MPa | 333000 psi | 0° Direction, Wet; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 2410 MPa | 349000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| Tensile Modulus | 2550 MPa | 370000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| | 2550 MPa | 370000 psi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| Compressive Strength | 125 GPa | 18200 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 128 GPa | 18600 ksi | 0° Direction, Wet; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| Compressive Strength | 129 GPa | 18700 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature 21.1 °C | @Temperature 70.0 °F | |
| | 130 GPa | 18800 ksi | 0° Direction, Dry; Vacuum/Oven Cured; ASTM D3039-95 |
| | @Temperature -53.9 °C | @Temperature -65.0 °F | |
| Compressive Strength | 738 MPa | 107000 psi | Wet; Vacuum/Oven Cured; SACMA 1-94 |
| | @Temperature 82.2 °C | @Temperature 180 °F | |
| | 1220 MPa | 177000 psi | Dry; Vacuum/Oven Cured; SACMA 1- |

| Mechanical Properties | Metric @ Temperature 82.2 °C | English @ Temperature 180 °F | Comments |
|-----------------------|------------------------------------|--------------------------------------|--|
| | 1240 MPa @ Temperature 21.1 °C | 180000 psi @ Temperature 70.0 °F | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | 1450 MPa @ Temperature -53.9 °C | 211000 psi @ Temperature -65.0 °F | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| Compressive Modulus | 123 GPa @ Temperature -53.9 °C | 17900 ksi @ Temperature -65.0 °F | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | 124 GPa @ Temperature 82.2 °C | 18000 ksi @ Temperature 180 °F | Wet; Vacuum/Oven Cured; SACMA 1-94 |
| | 125 GPa @ Temperature 21.1 °C | 18100 ksi @ Temperature 70.0 °F | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | 127 GPa @ Temperature 82.2 °C | 18400 ksi @ Temperature 180 °F | Dry; Vacuum/Oven Cured; SACMA 1-94 |
| | | 39.3 MPa @ Temperature 82.2 °C | 5700 psi @ Temperature 180 °F |
| Shear Strength | 64.8 MPa @ Temperature 82.2 °C | 9400 psi @ Temperature 180 °F | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | 73.8 MPa @ Temperature 82.2 °C | 10700 psi @ Temperature 180 °F | Beam, V-Notched; Wet; Vacuum/Oven Cured; ASTM D5379-93 |
| | 88.9 MPa @ Temperature 21.1 °C | 12900 psi @ Temperature 70.0 °F | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | 108 MPa @ Temperature 82.2 °C | 15700 psi @ Temperature 180 °F | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |
| | 120 MPa @ Temperature -53.9 °C | 17400 psi @ Temperature -65.0 °F | Short-Beam, Dry; Vacuum/Oven Cured; ASTM D2344 |
| | 138 MPa @ Temperature 21.1 °C | 20000 psi @ Temperature 70.0 °F | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |
| | 177 MPa @ Temperature -53.9 °C | 25600 psi @ Temperature -65.0 °F | Beam, V-Notched; Dry; Vacuum/Oven Cured; ASTM D5379-93 |

| Thermal Properties | Metric | English | Comments |
|--------------------|--------|---------|----------|
|--------------------|--------|---------|----------|

| Thermal Properties | 165 °C Metric | 329 °F English | From DMA Comments |
|--------------------|------------------|-------------------|----------------------|
|--------------------|------------------|-------------------|----------------------|

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

| Descriptive Properties | Value | Comments |
|--|-------|--------------|
| Fabric Area Weight (g/m ²) | 150 | |
| Prepreg Resin Content (%) | 32-38 | |
| Resin Flow (%) | 6-20 | 275°F, 15psi |
| Tack | Light | |

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