

## Park Electrochemical Nelcote® E-746 Epoxy Prepreg, 3k 5HS Carbon Reinforced

Category : Polymer , Thermoset , Epoxy

### Material Notes:

Nelcote® E-746 is a modified epoxy resin system designed to retain excellent mechanical properties after extended exposure to high temperature. E-746 has a proven history in many demanding aerospace applications. Key Features and Benefits: Excellent retention of mechanical properties after long-term high temperature exposure Soft tack and drape properties Long ambient out-time for maximum process flexibility Good electrical properties for RF applications Meets requirements of MIL-R-9300B Type

II Applications/Qualifications: Secondary Aircraft Structures Radomes Nacelles Inlet Ducts Fairings Meets SS9578 and GMS4001 specifications. Information provided by Park Electrochemical Corp.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Park-Electrochemical-Nelcote-E-746-Epoxy-Prepreg-3k-5HS-Carbon-Reinforced.php](http://www.lookpolymers.com/polymer_Park-Electrochemical-Nelcote-E-746-Epoxy-Prepreg-3k-5HS-Carbon-Reinforced.php)

Physical Properties	Metric	English	Comments
Volatiles	<= 2.0 %	<= 2.0 %	
	@Temperature 163 °C	@Temperature 325 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	621 MPa	90000 psi	0° Direction, Dry, Autoclave; ASTM D638
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Flexural Strength	876 MPa	127000 psi	Dry, Autoclave; ASTM D790
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Shear Strength	31.0 MPa	4500 psi	Short-Beam, Dry, Autoclave; ASTM D2344
	@Temperature 177 °C	@Temperature 350 °F	
	44.1 MPa	6400 psi	Short-Beam, Dry, Autoclave; ASTM D2344
	@Temperature 121 °C	@Temperature 250 °F	
	50.3 MPa	7300 psi	Short-Beam, Dry, Autoclave; ASTM D2344
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	180 °C	356 °F	Laminate; standard cure
	230 °C	446 °F	Laminate; post cure

Processing Properties	Metric	English	Comments
Gel Time	1.00 - 3.00 min	1.00 - 3.00 min	

Processing Properties	Metric 12.0 Month	English 12.0 Month	Comments
Shelf Life	@Temperature -17.8 °C	@Temperature 0.000 °F	

Descriptive Properties	Value	Comments
Fabric Area Weight (g/m <sup>2</sup> )	280	
Prepreg Resin Content (%)	35-41	
Resin Flow (%)	7-21	325°F, 50psi

## Contact Songhan Plastic Technology Co.,Ltd.

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