

## Park Electrochemical Nelcote® E-752 Epoxy Prepreg, 12K PW HTS Reinforced

Category : Polymer , Thermoset , Epoxy

### Material Notes:

Nelcote® E-752 is a toughened, 185°C cure epoxy system designed for demanding structural applications up to 130°C. E-752 offers a good balance of toughness, high service temperature and good moisture resistance, as well as excellent tack and drape. Formulated for both oven and autoclave cure, E-752 provides for easy processing with oven cure, without sacrificing mechanical properties. Key Features and Benefits: Specifically designed to allow both oven cure and autoclave cure Allows oven curing without sacrificing mechanical properties Service temperatures up to 130°C Controlled flow for ease of processing Flexible cure temperature 132°C to 185°C Good mechanical properties can be achieved through oven curing at 132°C, followed by post-cure at 185°C Self-adhesive grade for sandwich panel applications Applications/Qualifications: Primary and Secondary Aircraft Structures Ducting Fairings Nacelles Information provided by Park Electrochemical Corp.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Park-Electrochemical-Nelcote-E-752-Epoxy-Prepreg-12K-PW-HTS-Reinforced.php](http://www.lookpolymers.com/polymer_Park-Electrochemical-Nelcote-E-752-Epoxy-Prepreg-12K-PW-HTS-Reinforced.php)

Physical Properties	Metric	English	Comments
Volatiles	<= 1.0 % @Temperature 135 °C	<= 1.0 % @Temperature 275 °F	8 min

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	890.1 MPa @Temperature 23.9 °C	129100 psi @Temperature 75.0 °F	0° Direction, Dry, 365° Oven Cured; ASTM D3039
Tensile Modulus	64.8 GPa @Temperature 23.9 °C	9400 ksi @Temperature 75.0 °F	0° Direction, Dry, 365° Oven Cured; ASTM D3039
Compressive Strength	298 MPa @Temperature 23.9 °C	43200 psi @Temperature 75.0 °F	Open-Hole, Dry, 365°F Oven Cured; ASTM D6484
	641 MPa @Temperature 121 °C	93000 psi @Temperature 250 °F	Dry, 365° Oven Cured; SACMA 1R-94
	807 MPa @Temperature 23.9 °C	117000 psi @Temperature 75.0 °F	Dry, 365° Oven Cured; SACMA 1R-94
Compressive Modulus	40.0 GPa @Temperature 23.9 °C	5800 ksi @Temperature 75.0 °F	Open-Hole, Dry, 365°F Oven Cured; ASTM D6484
	58.6 GPa @Temperature 121 °C	8500 ksi @Temperature 250 °F	Dry, 365° Oven Cured; SACMA 1R-94
	60.0 GPa	8700 ksi	

Mechanical Properties	Metric @ Temperature 23.9 °C	English @ Temperature 75.0 °F	Dry, 365° Oven Cured; SACMA 1R-94 Comments
Shear Modulus	2.55 GPa	370 ksi	In-Plane, Wet, 365° Oven Cured; ASTM D3518
	@Temperature 121 °C	@Temperature 250 °F	
	3.59 GPa	520 ksi	In-Plane, Dry, 365° Oven Cured; ASTM D3518
	@Temperature 121 °C	@Temperature 250 °F	
	4.62 GPa	670 ksi	In-Plane, Dry, 365° Oven Cured; ASTM D3518
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Shear Strength	78.6 MPa	11400 psi	In-Plane, Dry, 365° Oven Cured; ASTM D3518
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	86.2 MPa	12500 psi	In-Plane, Dry, 365° Oven Cured; ASTM D3518
	@Temperature 121 °C	@Temperature 250 °F	

Thermal Properties	Metric	English	Comments
Glass Transition Temp, Tg	170 °C	338 °F	Wet; DMA
	190 °C	374 °F	Dry; DMA

Processing Properties	Metric	English	Comments
Gel Time	5.00 - 12.0 min	5.00 - 12.0 min	
Shelf Life	12.0 Month	12.0 Month	
	@Temperature -17.8 °C	@Temperature 0.000 °F	

Descriptive Properties	Value	Comments
Fabric Area Weight (g/m <sup>2</sup> )	378	
Prepreg Resin Content (%)	35-43	

## Contact Songhan Plastic Technology Co.,Ltd.

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