

Park Electrochemical Nelcote® V-341 Polybutadiene Prepreg, 581 Quartz Reinforced

Category : Polymer , Thermoset , Rubber or Thermoset Elastomer (TSE)

Material Notes:

Nelcote® V-341 is Polybutadiene resin system designed to provide excellent electrical properties in demanding airborne, shipboard, and undersea applications. Key Features and Benefits: Extremely low Dk/Df values for demanding RF / microwave applications Self adhesive bond to foam cores Long ambient out-time for easy processing Easily processed in both vacuum/oven and autoclave processes A cost effective, shop-friendly alternative to BMI and Cyanate Ester materials in many applications Resistant to fungus, moisture, rain impact, and most chemicals Applications/Qualifications: High performance radomes Signature control devices US Army Helicopter Air Force Ground-Based Radar Information provided by Park Electrochemical Corp.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Park-Electrochemical-Nelcote-V-341-Polybutadiene-Prepreg-581-Quartz-Reinforced.php

Physical Properties	Metric	English	Comments
Volatiles	<= 2.0 % @Temperature 288 °C	<= 2.0 % @Temperature 550 °F	10 min
Water Absorption	0.050 %	0.050 %	14 days immersion

Mechanical Properties	Metric	English	Comments
Hardness, Barcol	70	70	
Tensile Strength, Yield	586 MPa @Temperature 23.9 °C	85000 psi @Temperature 75.0 °F	0° Direction, Dry; ASTM D638
Tensile Modulus	25.5 GPa @Temperature 23.9 °C	3700 ksi @Temperature 75.0 °F	0° Direction, Dry; ASTM D638
Flexural Strength	234 MPa @Temperature 93.3 °C	34000 psi @Temperature 200 °F	Dry; ASTM D790
	448 MPa @Temperature 23.9 °C	65000 psi @Temperature 75.0 °F	Dry; ASTM D790
Flexural Modulus	20.0 GPa @Temperature 93.3 °C	2900 ksi @Temperature 200 °F	Dry; ASTM D790
	21.4 GPa @Temperature 23.9 °C	3100 ksi @Temperature 75.0 °F	Dry; ASTM D790
Compressive Strength	152 MPa @Temperature 93.3 °C	22000 psi @Temperature 200 °F	Dry; Post-Cure; ASTM D695

Mechanical Properties	Metric	English	Comments
	255 MPa	37000 psi	Dry; Post-Cure; ASTM D695
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	276 MPa	40000 psi	Dry; ASTM D695
	@Temperature 23.9 °C	@Temperature 75.0 °F	
Compressive Modulus	23.4 GPa	3400 ksi	Dry; Post-Cure
	@Temperature 23.9 °C	@Temperature 75.0 °F	
	25.5 GPa	3700 ksi	Dry
	@Temperature 23.9 °C	@Temperature 75.0 °F	

Electrical Properties	Metric	English	Comments
Dielectric Constant	3.09	3.09	
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	
	3.12	3.12	
	@Frequency 3.50e+10 Hz	@Frequency 3.50e+10 Hz	
Dissipation Factor	0.0030	0.0030	
	@Frequency 3.50e+10 Hz	@Frequency 3.50e+10 Hz	
	0.0035	0.0035	
	@Frequency 1.00e+10 Hz	@Frequency 1.00e+10 Hz	

Processing Properties	Metric	English	Comments
Gel Time	1.00 - 1.50 min	1.00 - 1.50 min	
	@Temperature 171 °C	@Temperature 340 °F	
Shelf Life	3.00 Month	3.00 Month	
	@Temperature 4.44 °C	@Temperature 40.0 °F	
	6.00 Month	6.00 Month	
	@Temperature -17.8 °C	@Temperature 0.000 °F	

Descriptive Properties	Value	Comments
Fungus Resistance	Rated 1 (Pass)	ASTM G21-70
Prepreg Resin Content (%)	26-33	

Descriptive Properties	Value	Comments
Resin Flow (%)	6-14	350°F, 100psi

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