

GSG11



Globally Sourced G-11 Sheet Data Sheet

Definition: GSG11 is constructed from a woven glass fabric with an epoxy resin binder. The epoxy resin system is not flame retardant but has greater temperature resistance than G-10.

Characteristics: GSG11 exhibits extremely high mechanical strength (flexural, impact) at room temperature and maintains a minimum of 30.0 ksi flexural strength at 150°C. Good dielectric loss and electric strength properties under both dry and humid conditions.

Certifications*: The manufactures of GSG11 has informed Norplex-Micarta that the product meets NEMA G-11, MIL-I-24768/3 and ASTM D 709 Type G-11.

TYPICAL PROPERTIES

GENERAL PHYSICAL PROPERTIES	Thickness	UNITS	VALUE
Izod Impact Strength Lengthwise – ASTM D229 E-48/50	0.125" and above	ft-lb/in	8.5
Izod Impact Strength Crosswise – ASTM D229 E-48/50	0.125" and above	ft-lb/in	7.7
Flexural Strength Lengthwise – ASTM D229 Condition A	0.031"	psi	60,000
	0.062"	psi	70,000
	0.125"	psi	60,000
Flexural Strength Crosswise – ASTM D229 Condition A	0.031"	psi	55,000
	0.062"	psi	52,000
	0.125"	psi	50,000
Bond Strength – ASTM D229 Condition A	0.500" and above	lb	2,100
Bond Strength – ASTM D229 D-48/50	0.500" and above	lb	1,600
Water Absorption – ASTM D229 D1-24/23	0.031"	%	0.40
	0.062"	%	0.20
	0.125"	%	0.10

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TYPICAL PROPERTIES

THERMAL & ELECTRICAL PROPERTIES	Thickness	UNITS	VALUE
Flammability Rating – U.L. 94 Condition A	0.031" and above	Class	HB
Breakdown Voltage – ASTM D229 Condition A	0.031" - 1.000"	kV	50
Breakdown Voltage – ASTM D-48/50	0.031" - 1.000"	kV	45
Permittivity @ 1 MHz – ASTM D229 Condition A	0.031" - 1.000"	-	4.8
Permittivity @ 1 MHz – ASTM D229 Condition D-24/23	0.031" and above	-	4.8
Permittivity @ 1 MHz – ASTM D229 Condition D-48/50	0.125"	-	4.9
Dissipation Factor @ 1 MHz – ASTM D229 Condition A	0.031" and above	-	0.022
Dissipation Factor @ 1 MHz – ASTM D229 D-24/23	0.031" and above	-	0.030
Dissipation Factor @ 1 MHz – ASTM D229 D-48/50	0.125"	-	0.040

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