



THE GUND COMPANY

Manufacturers & fabricators of engineered material solutions

Item:	NEMA Grade G-3 Glass Phenolic Laminate		
Description:	NEMA Grade G-3 material is a woven glass fabric laminate with a high temperature phenolic resin. Glass phenolic insulating materials offer good flexural, compressive, and impact strength at elevated temperatures as well as good moisture resistance.		
Standards:	NEMA LI-1: Grade G-3	IEC 60893: PF GC 301	MIL-I-24768: 18-GPG
Availability:	Laminate Sheets:	English Units (in)	SI Units (mm/cm)
		Thickness:	.008 to 4.0 (mm)
	Sheet Sizes:	36 x 48 to 48 x 108	91.4 x 122 to 122 x 274.3 (cm)
	Tubes:	NEMA G-3 convolute tubes are available from The Gund Company in nearly any custom size of inside and outside diameter, per customer requirements	
Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings of our customers		

Key Characteristics	Test Method	Units - English (SI)	Typical Values
Moisture Absorption (.062")	ASTM D-570	%	2.0
Tensile Strength (.125")	ASTM D-638	psi (MPa)	Lengthwise 42,000 (289)
			Crosswise 34,000 (234)
Compressive Strength, Flat (.50")	ASTM D-695	psi (MPa)	76,000 (523)
Flexural Strength (.062")	ASTM D-790	psi (MPa)	Lengthwise 18,000 (124)
			Crosswise 14,000 (96)
Shear Strength	ASTM D-732	psi (MPa)	18,000 (124)
Bond Strength (.50") Lengthwise	ASTM D-229	lb. (kg)	1,500 (681)
IZOD Impact Strength (.50")	ASTM E-48/50	ft.-lb./in.	Lengthwise 12.0
			Crosswise 11.0
Arc Resistance (.125")	ASTM D-495	Seconds	100
Temperature Index (Electrical/Mechanical)	--	°C	140/170
Breakdown Voltage (.125")	Condition A	kV	55
	Condition D-48/50		40
Rockwell Hardness (.062")	--	M Scale	110
Coefficient of Thermal Expansion	X-axis Y-axis	--	"/°C x 10 ⁶ 15.0
			18.0
Flammability Rating	UL 94	Class	HB
Dielectric Strength (.062")	Condition A	V/mil	375
	Condition D-48/50		200