



THE GUND COMPANY

MANUFACTURERS & FABRICATORS OF ENGINEERED MATERIAL SOLUTIONS

NEMA G-15 Thermoset Composite

Description:	NEMA G-15 is a new thermoset composite comprised of woven fiberglass and a unique blend of high-temperature resin binders designed for applications that demand superior performance at elevated temperatures. Designed as a cost-effective alternative to engineered thermoplastics, NEMA G-15 has outstanding flexural and impact strength and maintains a high percentage of mechanical and insulating properties up to 240°C. It offers excellent dimensional stability and resistance to creep, and good resistance to moisture, chemicals, alkali, and acids. It does not melt or soften at elevated temperatures and offers extended application capability beyond typical NEMA grades. IEC equivalent is PIGC301.			
Availability:	Laminate Sheets:	English Units (in.)		SI Units (mm/cm)
		Thickness:	0.016 - 3.50	0.41 - 88.9 (mm)
		Sheet Size:	48 x 48 / 48 x 96	122 x 122 / 122 x 244 (cm)
	Fabricated Parts:	The Gund Company custom fabricates insulation materials to the exact specifications and drawings specified by our customers.		

Key Characteristics		Test Method	Units - English (SI)	Typical Values
Specific Gravity		ASTM D-229	--	1.81
Water Absorption (0.35")		ASTM D-570	%	<0.16
Tg-DMA Method (0.35")		ASTM E-1640	°C / °F	240/464
Rockwell Hardness		ASTM D-785	M Scale	117
Bond Strength		ASTM D-229	lb. (kg)	>1,450 (658)
Flexural Strength 0.35" Thick	Lengthwise	ASTM D-790	PSI (MPa)	>78,000 (538)
	Crosswise	ASTM D-790	PSI (MPa)	>73,000 (503)
LW & CW @ 150°C/302°F x 1 hour		ASTM D-790	PSI (MPa)	>59,000 (407)
LW & CW @ 200°C/392°F x 1 hour		ASTM D-790	PSI (MPa)	>41,000 (283)
LW & CW @ 220°C/428°F x 1 hour		ASTM D-790	PSI (MPa)	>36,100 (249)
LW & CW @ 240°C/464°F x 1 hour		ASTM D-790	PSI (MPa)	>22,400 (154)
LW & CW @ 260°C/500°F x 1 hour		ASTM D-790	PSI (MPa)	>17,400 (120)
IZOD Impact Strength	Lengthwise	ASTM D-256	ft.-lb. / in.	>17
	Crosswise	ASTM D-256	ft.-lb. / in.	>14
Tensile Strength \perp (0.125"), Lengthwise		ASTM D-638	PSI (MPa)	41,000 (283)
Compressive Strength, Flatwise		ASTM D-695	PSI (MPa)	>60,000 (414)
Shear Strength (0.125")		ASTM D-732, Condition A	PSI (MPa)	>20,000 (138)
Electrical Data				
Dielectric Breakdown (0.125")		ASTM D-149	Volts	>50,000
Dielectric Strength, Step by Step (0.125")		ASTM D-149	VPM	>450
Arc Resistance		ASTM D-495	Seconds	>180
Comparative Tracking Index		IEC 60112	--	375
Flammability		UL94	--	V1 <5mm / V0 >6mm

Data supplied above are typical values and are not to be considered specification values. All of the information, suggestions and recommendations pertaining to the properties and uses of the products herein are based upon tests and data believed to be accurate; however, the final determination regarding suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty, expressed or implied, including, without limitation warranty of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.