



**MATERIAL DATA SHEET**

**Material:** Grade G-5 Glass Melamine Laminate Sheet

**Description:** G-5 glass/melamine laminated sheet is most frequently preferred for applications that require high mechanical strength, exceptional arc resistance and self-extinguishing properties.

**Standards:** NEMA LI-1 Grade G-5  
MIL-I-24768 / 8 Type GMG

Physical Properties	Test Condition	ASTM	Typical Values
For Thickness			.125"
Specific Gravity		D792	1.90
Rockwell Hardness (M Scale)		D785	120
Water Absorption (maximum)		D229	2.0%
Flexural Strength	Condition A: Lengthwise Crosswise	D229	44,000 psi 38,000 psi
Tensile Strength	Condition A: Lengthwise Crosswise		37,000 psi 30,000 psi
Compressive Strength	Condition A: Flatwise Edgewise	D695	70,000 psi 25,000 psi
Izod Impact Strength (.500" thick)	E48/40: Lengthwise Crosswise	D229	7.0 ft-lb/in.(notch) 5.5 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A D 48/50	D229	1,570 lbs 1,400 lbs

Thermal & Electrical Properties	Test Condition	ASTM	Typical Values
Temperature Index Electrical / Mechanical			140° C
Volume resistivity			6x10 <sup>7</sup> megohms-cm
Surface resistivity			6x10 <sup>6</sup> megohms
Dielectric Breakdown Voltage (step x step)	Condition A / D 48/50	D229	23.0 kV / 5.0 kV
Maximum Permittivity @ 1 MHz	Condition A / D 24/23	D229	8
Maximum Dissipation @ 1 MHz	Condition A / D 24/23 / D48 / 50	D229	0.020
Dielectric Strength (short time)	Condition A	D229	260 Vpm
Arc Resistance	Condition A	D 495	185 seconds