



**MATERIAL DATA SHEET**

**Material:** Grade G-9 Glass Melamine Laminate Sheet

**Description:** G-9 glass/melamine laminated sheet is most frequently preferred for applications that require high mechanical strengths, self-extinguishing properties, and exceptional arc resistance in humid environments.

**Standards:** NEMA LI-1 Grade G-9  
 MIL-I-24768 / 1 Type GME

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	0.75%
Flexural Strength	Condition A: Lengthwise Crosswise	D229	55,000 psi 35,000 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	1,700 lbs 1,500 lbs

Thermal & Electrical Properties	Test Condition	ASTM	Typical Values
Temperature Index Electrical / Mechanical			140° C
Volume resistivity			N/A
Surface resistivity			1.5x10 <sup>7</sup> megohms
Dielectric Breakdown Voltage (step x step)	Condition A / D 48/50	D229	60.0 kV / 55.0 kV
Maximum Permittivity @ 1 MHz	Condition A / D 24/23	D229	7.20
Maximum Dissipation @ 1 MHz	Condition A / D 24/23 / D48 / 50	D229	0.017
Dielectric Strength (short time)	Condition A	D229	350 Vpm
Arc Resistance	Condition A	D 495	180 seconds