

**MATERIAL DATA SHEET****Material:** Lamitex® Grade G-7 Glass Silicone Laminate Sheet**Description:** Lamitex® G7 glass/silicone laminated sheets are primarily used for mechanical, electrical and electronic applications where high mechanical strength and heat resistance are required at temperatures up to 220°C. G-7 is especially suitable for high-frequency applications where extremely good dielectric loss properties under dry conditions and good electrical properties under humid conditions are important.

Standards:	NEMA LI-1 Grade	G-7	Availability:	G-7 is also manufactured as round tubes (convolute wound), rods and fabricated custom parts.
	MIL-I-24768	/ 17 Type GSG		
	EN 60893	SI GC 202		
	DIN	Hgw 2572		
	British Standard	3953 SI-4 & 5		

Physical Properties	Test Condition	ASTM	Typical Values
Thickness			.125"
Specific Gravity		D792	1.65
Rockwell Hardness (M Scale)		D785	100
Moisture Absorption (maximum)		D229	.35%
Flexural Strength	Condition A:		
	Lengthwise	D229	20,000 psi
	Crosswise		18,000 psi
Tensile Strength	Condition A:		
	Lengthwise		23,000 psi
	Crosswise		18,500 psi
Compressive Strength	Condition A:		
	Flatwise	D695	45,000 psi
	Edgewise		14,000 psi
Izod Impact Strength (.500" thick)	E48/50:		
	Lengthwise	D229	6.5 ft-lb/in.(notch)
	Crosswise		5.5 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A		
	D 48/50	D229	650 lbs
			550 lbs

Thermal & Electrical Properties

Temperature Index Electrical / Mechanical			170°C / 220°C
Coefficient of Thermal Expansion			10 cm/cm/°C x 10 ⁻⁶
U.L.® 94 Flammability Rating			94-V0
Dielectric Breakdown Voltage (step x step)	Condition A / D 48/50	D229	32.0 kV / 15.0 kV
Maximum Permittivity @ 1 MHz	Condition A / D 24/23	D229	4.20 / 4.20
Maximum Dissipation @ 1 MHz	Condition A / D 24/23	D229	.003 / .022
Dielectric Strength (short time)	Condition A	D229	350 Vpm
Dielectric Strength (step x step)	Condition A	D229	250 Vpm
Arc Resistance	Condition A	D 495	180 seconds

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