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ELECTRICAL INSULATION MATERIALS
SINCE 1921

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MATERIAL DATA SHEET

Material: Lamitex® Grade G-7 Glass Silicone Laminate Sheet

Description: Lamitex® G-7 glass/silicone laminated sheets are primarily used for mechanical, electrical and electronic applications where high mechanical strengths are required at temperatures up to 220°C. G-7 exhibits extremely good dielectric loss properties under dry conditions and good electrical properties under humid conditions.

Standards: NEMA LI-1 Grade G-7
MIL-I-24768 / 17 Type GSG
EN 60893 SI GC 202
DIN Hgw 2572
British Standard 3953 SI-4 & 5

Availability: G-7 is also manufactured as round tubes (convolute wound) and fabricated custom parts.

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 Crosswise	D229	20,000 psi 18,000 psi
Tensile Strength	Condition A: Lengthwise Crosswise		23,000 psi 18,500 psi
Compressive Strength	Condition A: Flatwise Edgewise	D695	45,000 psi 14,000 psi
Izod Impact Strength (.500" thick)	E48/50: Lengthwise Crosswise	D229	6.5 ft-lb/in. (notch) 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-VO
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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