

Lamitex® G-3 Glass/Phenolic Sheet

Lamitex® G3 glass/phenolic laminated sheet is most frequently preferred for application that require high flexural and impact strengths and good electrical properties under low relative humidity conditions. . Lamitex G-3 meets or exceeds NEMA G-3, Mil-I-24768/18 type CPG specifications and meets UL 94-HB requirements.

<u>Physical Properties</u>	<u>Test Condition</u>	<u>ASTM</u>	<u>Values</u>
Specific Gravity		D792	1.85
Rockwell Hardness (M Scale) .062"-.125"		D785	110
Moisture Absorption (maximum) - .062"	D 24/23	D570	0.65%
Flexural Strength	Condition A: Lengthwise	D790	379.2 MPa / 55,000 psi
	Crosswise		344.7 MPa / 50,000 psi
Flexural Modulus (.062")	Condition A: Lengthwise	D790	12.4 kpsi / 1,800 kpsi
	Crosswise		9.7 kpsi / 1,400 kpsi
Tensile Strength (0.125")	Condition A: Lengthwise	D638	289.6 Mpa / 42,000 psi
	Crosswise		234.4 MPa / 34,000 psi
Compressive Strength (0.500")	Condition A: Flatwise	D695	524.0 MPa 76,000 psi
Izod Impact Strength (.500" thick)	E48/50: Lengthwise	D256	6.41 J/cm - 12.0 ft-lb/in.(notch)
	Crosswise		5.87 J/cm - 11.0 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A	D229	680.4 kg / 1,500 lbs.
Shear Strength (.062" thick) - Perpendicular	Condition A	D732	124.1 MPa / 18,000 psi

<u>Thermal & Electrical Properties</u>			
Temperature Index	Electrical/Mechanical	U.L. Bulletin 746b	140° C / 170° C
Coefficient of Thermal Expansion $"/^{\circ}\text{C}/ \times 10^{-6}$	X- axis/Y-axis		15.0/18.0
U.L.® 94 Flammability Rating			94-HB
Dielectric Breakdown Voltage (step x step)	Condition A	D149	55.0 kV
	D 48/50	D149	40 kV
Maximum Permittivity @ 1 MHz	Condition A	D229	7.80
	D 24/23	D229	8.00
Maximum Dissipation @ 1 MHz	Condition A	D229	0.020
	D 24/23	D229	0.080
Dielectric Strength (short time)	Condition A	D229	236.0 kV/cm - 600 Vpm
	D 48/50	D229	228.3 kV/cm - 580 Vpm
Arc Resistance (0.125")	Condition A	D 495	100 seconds
Comparative Tracking Index (CTI) (0.125")		D 3638	150 V

Standards: NEMA LI-1 Grade G-3
 Mil-I-24768 / 18 Type GPG
 EN 61212-3-1: PF GP 201
 Din 7735 Hgw 2072

Availability: Grade G-3 is also manufactured as round tubes (convolute wound), molded channel, angle, square and rectangular tubes and fabricated custom parts

All information and suggestions pertaining to the properties and uses of the materials described herein are based upon tests and data believed to be accurate; however, the final determination regarding the suitability of any material for such use is the sole responsibility of the user. No warranty is expressed or implied, including, without limitation, warrant of merchantability or fitness for a particular purpose. Under no circumstances shall Lamitex, LLC be liable for incidental or consequential loss or damage.

Composite Tubes • Bearings • Molded Shapes • Rotary Vanes • Fabricated Parts • Vulcanized Fibre • High Temp Insulation