



# FRANKLIN

MANUFACTURERS & FABRICATORS OF  
ELECTRICAL INSULATION MATERIALS  
SINCE 1921

*Composites for Today's Challenges*

**FRANKLIN FIBRE – LAMITEX CORPORATION**

Phone: 302-652-3621

e-mail: [info@franklinfibre.com](mailto:info@franklinfibre.com)

Fax: 302-571-9754

web: [www.franklinfibre.com](http://www.franklinfibre.com)

## MATERIAL DATA SHEET

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

**Description:** Lamitex® 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
EN 60893	MF GC 201
DIN	Hgw 2272
British Standard	3953 MF-4

**Availability:** G-5 is also manufactured as round tubes (convolute wound), molded channel, angle, square and rectangular tubes and fabricated custom parts.

Physical Properties	Test Condition	ASTM	Typical Values
Thickness			.125"
Specific Gravity		D792	1.90
Rockwell Hardness (M Scale)		D785	120
Moisture 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)	E48/50: 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

Temperature Index Electrical / Mechanical			140° C / 140° C
Coefficient of Thermal Expansion			10.0 cm/cm/°C x 10 <sup>-6</sup>
U.L.® 94 Flammability Rating			94-V0
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	7.80 / 8.00
Maximum Dissipation @ 1 MHz	Condition A / D 24/23	D229	0.02 / 0.080
Dielectric Strength (short time)	Condition A	D229	260 Vpm
Dielectric Strength (step x step)	Condition A	D229	160 Vpm
Arc Resistance	Condition A	D 495	185 seconds

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 Franklin Fibre - Lamitex Corp. be liable for incidental or consequential loss or damage.