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Lamitex® FR-4 Glass/Epoxy Sheet Performance Values

Lamitex® FR-4 epoxy laminated sheet is reinforced with a woven glass fabric. It is primarily used for mechanical, electrical and electronic applications where extremely high mechanical strengths are required at room and moderate temperatures. Lamitex FR-4 meets or exceeds NEMA FR-4 and Mil-I-24768/27 specifications, has excellent resistance to chemicals and retains its' electrical properties in dry and high humidity environments.

<u>Physical Properties</u>	<u>Test Condition</u>	<u>ASTM</u>	<u>Values</u>
Thickness			.125"
Specific Gravity		D792	1.80
Rockwell Hardness (M Scale)		D785	100
Moisture Absorption (maximum) .062"	D 24/23	D229	0.10%
Flexural Strength (.062")	Condition A: Lengthwise	D229	80,000 psi
	Crosswise		60,000 psi
Tensile Strength	Condition A: Lengthwise		50,000 psi
	Crosswise		40,000 psi
Compressive Strength (.500" thick)	Condition A: Flatwise	D695	70,000 psi
	Edgewise		25,000 psi
Izod Impact Strength (.500" thick)	E48/50: Lengthwise	D229	15.0 ft-lb/in.(notch)
	Crosswise		12.0 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A	D229	2,200 lbs
	D 48/50		1,600 lbs
<u>Thermal & Electrical Properties</u>			
Temperature Index	Electrical		130° C
	Mechanical		140° C
Coefficient of Thermal Expansion (x- axis/y-axis)			10.0/12.0 in/in/°C/ x 10 ⁻⁶
U.L.® 94 Flammability Rating			94-V0
Dielectric Breakdown Voltage (.062")	Condition A	D149	65.0 kV
	D 48/50	D149	54.0 kV
Maximum Permittivity @ 1 MHz (.062")	Condition A	D150	4.80
	D 24/23	D150	5.40
Maximum Dissipation @ 1 MHz (.062")	D 24/23	D150	0.025
Arc Resistance	Condition A	D495	120 Seconds
Comparative Tracking Index (CTI)		D3638	150 Volts
Dielectric Strength (.062")	Condition A	D149	670 Vpm
	D 48/50	D149	650 Vpm

All values are average test results from typical production material.
No Warranty is implied or guaranteed and testing is recommended for each application.