



FRANKLIN

Composites for Today's Challenges

Franklin Fibre - Lamitex Corp

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Lamitex® CE Laminated Sheet

Lamitex® CE Sheets are intended for use in electrical applications requiring good moisture resistance and good mechanical strength. It has lower mechanical strength than material with glass substrates, but has superior impact resistance when compared to paper based laminates. CE has good dielectric properties and medium dielectric loss.

Standards: NEMA LI-1

Mil-I-24768

EN 60893

Grade CE

/ 14 Type fBG

PF CC 203

Availability: CE is also manufactured as round tubes (convolute wound),

molded channel, angle, square and rectangular tubes and fabricated custom parts.

<u>Physical Properties</u>	<u>Test Condition</u>	<u>ASTM</u>	<u>Thickness</u>	<u>Values</u>
Specific Gravity		D792		1.37
Rockwell Hardness (M Scale)		D785	0.25	100
Moisture Absorption		D229	.062 "	2.00%
Flexural Strength	Condition A: Lengthwise	D790	.062 "	17,500 psi / 120.7 Mpa
	Crosswise		.062 "	15,500 psi / 103.4 Mpa
Flexural Modulus	Condition A: Lengthwise	D229	.062 "	1,600 kpsi / 11.0 GPa
	Crosswise		.062 "	1,500 kpsi / 10.3 GPa
Tensile Strength	Condition A: Lengthwise	D638	.125 "	11,000 psi / 75.8 Mpa
	Crosswise		.125 "	9,000 psi / 62.1 Mpa
Compressive Strength	Condition A: Flatwise	D695	.500"	34,000 psi / 234.41 Mpa
Izod Impact Strength	E48/50: Lengthwise	D256	.500 "	1.7 ft-lb/in. / .91 J/cm
	Crosswise		.500 "	1.5 ft-lb/in. / .80 J/cm
Bond Strength	Condition A	D732	.500 "	1,700 lbs / 771.1 kg
Shear Strength (Perpendicular to Laminations)	Condition A	D732	.062 "	14,000 psi / 96.5 Mpa

Thermal & Electrical Properties

Temperature Index - Electrical / Mechanical		UL.Bulletin 786b	.125"	115° C / 125° C
Coefficient of Thermal Expansion	X Axis	IPC-TM 650-2.4.24	.125"	20.0"/"/°C/ x 10 ⁻⁶
	Y Axis		.125"	22.0"/"/°C/ x 10 ⁻⁶
U.L.® 94 Flammability Rating			.062 "	94HB
Dielectric Breakdown Voltage (step x step)	Condition A	D149	.062 "	40 kV
	D 48/50	D149	.062 "	3 kV
Dielectric Strength (short time)	Condition A	D149	.062 "	550 Vpm / 216.5 kV/cm
	D 48/50	D149	.062 "	300 Vpm / 118.1 kV/cm
Permittivity 60Hz	Condition A	D150	.125 "	8.15
	D 24/23	D150	.125 "	11.44
Dissipation Factor	D 24/23		.125 "	0.248
Arc Resistance	Condition A	D495	.125 "	15 seconds

All values are average test results from typical production material.

No Warranty is implied or guaranteed and testing is recommended for each application.

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

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March 6, 2022 Rev. b