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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
Fax: 302-571-9754 web: www.franklinfibre.com

MATERIAL DATA SHEET

Material: Lamitex® Grade CE Cotton/Phenolic Laminate Sheet

Description: Lamitex® CE cotton/phenolic sheets are intended for use in electrical applications requiring good moisture resistance and good mechanical strength. It has lower mechanical strength than materials with glass substrates, but has superior impact resistance when compared to paper based laminates. CE possesses good dielectric properties and medium dielectric loss.

Standards: NEMA LI-1 Grade CE
MIL-I-24768 / 14 Type FBG
EN 60893 PF CC 203

Availability: CE 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	1.33
Rockwell Hardness (M Scale)		D785	1.05
Moisture Absorption (maximum)		D229	1.60%
Flexural Strength	Condition A:	Lengthwise	16,500 psi
		Crosswise	14,000 psi
Tensile Strength	Condition A:	Lengthwise	11,000 psi
		Crosswise	9,000 psi
Compressive Strength	Condition A:	Flatwise	39,000 psi
		Edgewise	24,500 psi
Izod Impact Strength (.500" thick)	E48/50:	Lengthwise	1.6 ft-lb/in.(notch)
		Crosswise	1.4 ft-lb/in.(notch)
Bond Strength (.500" thick)	Condition A	D229	1,800 lbs

Thermal & Electrical Properties

Temperature Index Electrical / Mechanical			115° C / 125° C
Coefficient of Thermal Expansion			20.0 cm/cm/°C x 10 ⁻⁶
U.L.® 94 Flammability Rating			94-HB
Dielectric Breakdown (step x step)	Condition A / D 48/50	D229	35.0 kV / 2.5 kV
Electrical Strength (short time)	Condition A	D229	360 Vpm
Electrical Strength (step x step)	Condition A	D229	220 Vpm

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.