Current Industrial Composites

Sheeting · Tubes · Rods · Fabricated Parts · Epoxy · Phenolic

MATERIAL DATA SHEET

Material: Grade C Cotton/Phenolic Laminate Sheet

Description: C cotton/phenolic sheet is intended for use in mechanical applications requiring high impact strength. It has lower mechanical strength than materials with glass substrates but has superior impact resistance when compared to paper based laminates.

Standards: NEMA LI-1 Grade C

MIL-I-24768 / 16 Type FBM

Physical Properties	Test Condition		ASTM	Typical Values
For Thickness				.125"
Specific Gravity			D792	1.36
Rockwell Hardness (M Scale)			D785	103
Water Absorption (maximum)			D229	2.50%
Flexural Strength	Condition A:	Lengthwise Crosswise	D229	17,000 psi 16,000 psi
Tensile Strength	Condition A:	Lengthwise Crosswise		10,000 psi 8,000 psi
Compressive Strength	Condition A:	Flatwise Edgewise	D695	37,000 psi 23,500 psi
Izod Impact Strength (.500" thick)	E48/40:	Lengthwise Crosswise	D229	1.9 ft -lb/in.(notch) 1.7 ft -lb/in.(notch)
Bond Strength (.500" thick)	Condition A D 48/50		D229	1,800 lbs

Thermal & Electrical Properties	Test Condition	ASTM	Typical Values
Temperature Index Electrical / Mechanical			125° C
Volume resistivity			N/A
Surface resistivity			N/A
Dielectric Breakdown Voltage (step x step)	Condition A / D 48/50	D229	35 kV
Maximum Permittivity @ 1 MHz	Condition A / D 24/23	D229	N/A
Maximum Dissipation @ 1 MHz	Condition A / D 24/23 / D48 / 50	D229	N/A
Dielectric Strength (short time)	Condition A	D229	200 Vpm
Arc Resistance	Condition A	D 495	N/A