

Cotton Phenolic CE Material Specifications

Phenolic Laminates physical strength, resiliency, ease and versatility of fabrication, and excellent electrical properties make Phenolics useful in a wide range of mechanical and electrical applications.

Physical Properties	Units	Test	CE
Density	lb/in ³ g/cm ³	D792	0.050 1.37
Water Absorption, 24 hrs.	%	D570	2.5

Mechanical Properties	Units	Test	CE
Tensile Strength -lengthwise -crosswise	psi	D638	11,000 9,000
Flexural Strength -lengthwise -crosswise	psi	D790	17,500 15,000
Flexural Modulus -lengthwise -crosswise	psi	D790	1,600,000 1,500,000
Compressive Strength	psi	D695	37,000
Hardness Rockwell M	-	D785	M100
Izod Impact Notched -lengthwise -crosswise	ft-lb/in	D256	1.70 1.50

Thermal Properties	Units	Test	CE
Coefficient of Linear Thermal Expansion -lengthwise -crosswise	X 10 ⁻⁵ in./in./°F	D696	1.10 1.22
Max. Operating Temperature	°F/°C	-	257 / 125
Thermal Conductivity	BTU- in/ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	C177	2.03 7.0
Flammability Rating	-	UL94	H-B

Electrical Properties	Units	Test	CE
Dielectric Strength	(V/mil) short time, 1/8" thick	D149	550
Dielectric Constant	@1 MHz	D150	5
Dissipation Factor	@1 MHz	D150	-
Arc Resistance	sec	D495	15

**The information provided in this table is a compilation of publicly available data. This information is provided for comparison purposes only, and is not intended to be warrantable. Further, *Technical Products, Inc.* disclaims any and all liability from errors, in accuracies, or omissions.