

Phenolic G-7 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	G-7
Density	lb/in ³ g/cm ³	D792	0.065 1.80
Water Absorption, 24 hrs.	%	D570	0.10

Mechanical Properties	Units	Test	G-7
Tensile Strength -lengthwise -crosswise	psi	D638	20,000 -
Flexural Strength -lengthwise -crosswise	psi	D790	30,000 -
Flexural Modulus -lengthwise -crosswise	psi	D790	1,600 -
Compressive Strength	psi	D695	50,000
Hardness Rockwell M	-	D785	M105
Izod Impact Notched -lengthwise -crosswise	ft-lb/in	D256	13.0 -

Thermal Properties	Units	Test	G-7
Coefficient of Linear Thermal Expansion -lengthwise -crosswise	X 10 ⁻⁵ in./in./°F	D696	0.72 0.90
Max. Operating Temperature	°F/°C	-	430 / 220
Thermal Conductivity	BTU- in/ft ² -hr.-°F x 10 ⁻⁴ cal/cm-sec-°C	C177	2.0 7.0
Flammability Rating	-	UL94	H-B

Electrical Properties	Units	Test	G-7
Dielectric Strength	(V/mil) short time, 1/8" thick	D149	350
Dielectric Constant	@1 MHz	D150	4.5
Dissipation Factor	@1 MHz	D150	0.018
Arc Resistance	sec	D495	240

**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.