



G-3 (Glass Cloth Phenolic Resin)

General Material Properties

Property	Metric	units	English	units
General				
Density	1.7e3 - 2e3	kg/m ³	0.0614 - 0.0723	lb/in ³ USD/lb
Mechanical				
Yield Strength	2.17e8 - 5.2e8	Pa	31.5 - 75.4	ksi
Tensile Strength	2.17e8 - 5.2e8	Pa	31.5 - 75.4	ksi
Elongation	0.0055 - 0.0191	% strain	0.55 - 1.91	% strain
Hardness (Vickers)	8.14e7 - 1.46e8	Pa	8.3 - 14.9	HV
Impact Strength (notched)	3e3 - 9.3e4	J/m ²	1.43 - 44.3	ft.lbf/in ²
Fracture Toughness	5.57e7 - 1.34e8	Pa/m ^{0.5}	50.7 - 122	ksi/in ^{0.5}
Young's Modulus	2.72e10 - 3.94e10	Pa	3.95 - 5.71	10 ⁶ psi
Thermal				
Max Service Temperature	190 - 210	°C	374 - 410	°F
Insulator or Conductor	Insulator		Insulator	
Specific Heat Capability	1.04e3 - 1.16e3	J/kg °C	0.248 - 0.278	BTU/lb. °F
Thermal Expansion Coefficient	7.2e-6 - 1.8e-5	strain/°C	4.0 - 10	μstrain/°F
Eco				
CO2 Footprint	13.3 - 14.7	kg/kg	13.3 - 14.7	lb/lb
Recycleable	No		No	

The information on this page is intended as general guidance only and is only accurate at the time of posting (9-10-12). Specific material properties vary by manufacturer. Please contact a Dielectric application engineer for help in choosing the optimal material for your application and budget.