

G10-FR4 is a type of fiberglass epoxy laminate material that is flame retardant. It is composed of layers of woven fiberglass cloth impregnated with epoxy resin and reinforced with flame retardant additives. G10-FR4 exhibits high mechanical strength, excellent electrical insulation properties, good dimensional stability, and resistance to heat and chemicals.

### Chemical Description

Description	Value
Material Type	Thermoset Composite
Chemical	Glass Epoxy Laminate
Additives	Glass
Color	Green
UV Resistant	No

### Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in <sup>3</sup>	0.065
Water Absorption, 24 hrs, Immersion,% by wt.	0.1
Max Continuous Operating Temp,°F	284
Coefficient of Linear Thermal Expansion, x10 <sup>-5</sup> in./in./°F	0.55
Minimum Operating Temp,°F	-200
Thermal Conductivity,BTU-in/ft <sup>2</sup> -hr-°F	2
Flammability Rating,UL94	V-0
Dielectric Strength,V/mil	800
Dielectric Constant at 1 MHz	5
Dissipation Factor at 1 MHz	0.019

### Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	45
Compressive Strength,ksi	65
Hardness, Rockwell M	110
Izod Impact-Notched ft-lb/in	14

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.