



SmithLamina™

G10

SmithLamina® G-10 material is a continuous filament woven fibreglass sheet bonded with epoxy resin. The material has the ability to maintain excellent mechanical, electrical, and physical properties at elevated temperatures to 130°C. NEMA G-10 is a non-brominated, non-flame retardant grade of glass epoxy laminate.

The industry refers to “G-10” material when they want a flame retardant, V-0 rated glass epoxy laminate rated at 130°C RTI. Technically, NEMA G-10 is a non-flame retardant, non-brominated version of glass epoxy laminate. If a non-brominated material is required, please specifically address this issue.

The material is known to retain its high mechanical values and electrical insulating qualities in both dry and humid conditions. These attributes, along with good fabrication characteristics, lend utility to this grade for a wide variety of electrical and mechanical applications.

Key Characteristics:

Grade: NEMA LI-1 Grade G10 / IEC 60893 EPGC 201 / Hgw 2372 / EP-3
Standard Colour: Green
Specific Density: 1.80 - 2.00 Gm/cm3
Thickness:
Standard Sizes:

TECHNICAL DATA

Key Characteristics	Units	Typical Values
Specific Gravity	g/cc	1.77
Rockwell Hardness (.062")	M Scale	99
Tensile Strength (.125")	psi	42000
Flexural Strength (.25")	psi	60000
IZOD Impact Strength	ft.-lbs./in.	8.5
Flexural Modulus(.062")	ksi (MPa)	3400
Compressive Strength, Flatwise	psi (MPa)	44,000 (303)
Flammability Rating	Class	V-0
Breakdown Voltage (.062") (Both Parallel Step Method)	kV	65
Dielectric Strength	V/mil.	1000
Specific Gravity	g/cc	1.77
Rockwell Hardness (.062")	M Scale	99
Tensile Strength (.125")	psi	42000
Flexural Strength (.25")	psi (MPa)	60000

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets. All values at 73°F (23°C) unless otherwise noted.

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on these tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping.