

TECHNICAL DATA SHEET

EPOXY GLASS G10

Thermosetting epoxy resin and woven glass-fibre laminate

G10 is a laminated material manufactured from woven glass fibre impregnated with thermosetting epoxy resin. It combines good mechanical and electrical properties with insulation performance, dimensional stability and resistance for demanding technical applications.

TECHNICAL PROPERTIES

Density · IEC 893-2	1.70–1.90 g/cm ³
Flexural strength perpendicular to laminations · IEC 893-2	340 MPa
Tensile strength · IEC 893-2	300 MPa
Compressive strength perpendicular to laminations · IEC 893-2	350 MPa
Charpy impact strength parallel to laminations · IEC 893-2	33 kJ/m ²
Service temperature	130 °C
Water absorption, 1.6 mm thickness · IEC 893-2	19 mg
Insulation resistance after immersion in water · IEC 893-2	$5 \times 10^{11} \Omega$
Electric strength perpendicular to laminations, oil at 90 °C · IEC 893-2	12 MV/m
Breakdown voltage parallel to laminations · IEC 893-2	45 kV
Dissipation factor at 1 MHz · IEC 250	0.030
Relative permittivity at 1 MHz · IEC 250	5.4

COMPOSITION

Woven glass-fibre reinforcement combined with a thermosetting epoxy-resin matrix. The laminated structure provides high stiffness, mechanical strength and good dielectric properties.

APPLICATIONS

Suitable for structural and insulating components, machined parts, supports, spacers, plates, electrical and electronic components, and other industrial applications requiring mechanical strength combined with electrical insulation.

MACHINING

G10 can be machined by cutting, milling, drilling and turning with suitable tooling. Due to its glass-fibre content, wear-resistant tools and appropriate dust-extraction systems are recommended.

CLASSIFICATION

Designation	G10 – woven glass-fibre reinforced epoxy laminate
Indicative HS code for plates/sheets	3921 90 60
Country of origin	To be confirmed

Technical data sheet prepared by The Composite Store. The stated values are reference technical properties of G10 material and should be interpreted according to the indicated test methods.