

laminates

VETRONIT G11 ROVING

► High Pressure Laminate with excellent retention of mechanical strength even at elevated temperatures

► Good electrical properties

► High comparative tracking index

General description

Vetronit G11 Roving is an insulating laminate made of glass roving bonded with epoxy resin. It has a temperature index of 180°C.

Specifications

IEC/DIN EN 60893 EP GC 205
DIN 7735 HGW 2370.4 (*)

(*) no longer valid since March 2003

RoHS Directive

Hazardous products listed in the EU-directive 2002/95/CE (RoHS-directive), §4 section 1, are not used as ingredients in this material.

Colour

Yellow brown

Application

Electrical insulation
High temperature resistant machine parts
Aeronautics and aerospace
Thermal insulation
Slot wedges
Chemical engineering

Former denominations

Vetronite 68.740
Vetronit G 11 Roving 432.88

Form of delivery

Sheet formats 1170 x 1070 mm and 2070 x 1070 mm (up to 40 mm thickness).
Tolerance of formats 0 / - 30 mm
Thickness in range of 2 to 150 mm
Thickness tolerances acc. to DIN EN 60893-3-2

Material also available as cut to size panels and machined parts.
Other dimensions and thicknesses on request.

Processing

Machining with carbide or diamond tools.
For water jet cutting we recommend to add silica sand to the water and to drill through-holes prior to machine.

		Value	Test norm
Mechanical properties			
Tensile strength	MPa	350	ISO 527
Flexural strength	MPa	550	ISO 178
Flexural strength at 150°C / 1h	MPa	410	ISO 178
Modulus of elasticity	MPa	22000	ISO 178
Compressive strength //, at 23°C	MPa	330	ISO 604
Flatwise compressive strength	MPa	550	ISO 604
Edgewise notched impact strength Charpy	kJ/m ²	200	ISO 179
Shear strength //	MPa	30	IEC 60893-2
Electrical properties			
Insulation resistance after the immersion in water	Ω	1.00E+12	IEC 60167
Flatwise electric strength, 90°C in oil	kV/mm	20	IEC 60243-1
Breakdown voltage //, 90°C in oil	kV	80	IEC 60243-1
Dissipation factor at 1 MHz		0.019	IEC 60250
Relative permittivity at 1 MHz		4.9	IEC 60250
Comparative tracking index CTI	V	500	IEC 60112
Thermal properties			
Temperature index (TI)	°C	180	IEC 60216
Thermal conductivity	W/m.K	0.25	DIN 52612
Coefficient of linear expansion //	10E-6 / K	15	VDE 0304
Physical properties			
Density	g/cm ³	1.90	ISO 1183
Water absorption 24h 23°C	mg / %	20 / 0.05	ISO 62

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