

Laminates

VETRONIT EGS 103

► High Pressure Laminate suitable for demanding mechanical and electrical applications even at elevated temperatures

► Good electrical properties

► G-11 type, TI 155°C

General description

Vetronit EGS 103 is an insulating laminate made of glass fabric bonded with epoxy resin. It has a temperature index of 155°C.

Specifications

IEC/DIN EN 60893 EP GC 203
DIN 7735 HGW 2372.4 (*)
NEMA LI-1 G-11

(*) no longer valid since March 2003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

Light beige

Application

Electrical insulation
High temperature resistant machine parts
Vaness and slides for compressors and vacuum pumps
Thermal insulation
Construction of jigs and fixtures

Former denominations

EGS 103
Vetronite 64.010

Form of delivery

Sheet formats 1170 x 1070 mm and 2070 x 1070 mm (up to 40 mm thickness).
Special size 4270 x 1270 mm (and others) on request.
Tolerance of formats 0 / - 30 mm
Thickness in range of 0,2 to 100 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

		Value	Test norm
Mechanical properties			
Flexural strength	MPa	400	ISO 178
Flexural strength at 150°C / 1h	MPa	200	ISO 178
Modulus of elasticity	MPa	24000	ISO 178
Edgewise notched impact strength Charpy	kJ/m ²	55	ISO 179
Flatwise compressive strength	MPa	400	ISO 604
Compressive strength //, at 23°C	MPa	250	ISO 604
Tensile strength	MPa	300	ISO 527
Electrical properties			
Insulation resistance after the immersion in water	Ω	1.00E+12	IEC 60167
Breakdown voltage //, 90°C in oil	kV	80	IEC 60243-1
Flatwise electric strength, 90°C in oil	kV/mm	20	IEC 60243-1
Dissipation factor at 1 MHz		0.02	IEC 60250
Relative permittivity at 1 MHz		5.0	IEC 60250
Comparative tracking index CTI	V	180	IEC 60112
Thermal properties			
Temperature index (TI)	°C	155	IEC 60216
Thermal conductivity	W/m.K	0.30	DIN 52612
Coefficient of linear expansion //	1.0E-6 / K	15	DIN 53752
Physical properties			
Density	g/cm ³	1.85	ISO 1183
Water absorption 24h 23°C	mg / %	12 / 0.06	ISO 62

to machine.

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