

Laminate



VETRONITE EGS 102

- High pressure laminate for high mechanical and electrical requirements
- Suitable for cryogenic applications
- Maintains excellent electrical properties at high humid air conditions

Description

Vetronite EGS 102 is an insulating laminate made of fine weave glass fabric bonded with epoxy resin for applications with moderate temperatures.

Specifications

IEC/DIN EN 60893	EP GC 201
DIN 7735 HGW	2372 (*)
BS 3953	EP-3 (*)
NFC 26151	Vt-EM 1 (*)
NEMA LI-1	G-10

(*) no longer valid

RoHS Directive

Hazardous products listed in the EU-directive 2011/65/EU (RoHS-directive), annex II and amendment 2015/863/EU are not used as ingredients in this material.

Colour

Green (homogenous colour cannot be guaranteed)

Applications

Chemical engineering
Galvanic equipment
High voltage insulation parts
Components operating at low temperature

	Unit	Value	Test norm
Mechanical properties			
Flexural strength	MPa	450	ISO 178
E-modulus	MPa	22000	ISO 178
Notched impact strength (Charpy), //	kJ/m ²	60	ISO 179
Compressive strength // at 23°C	MPa	300	ISO 604
Compressive strength ⊥ at 23°C	MPa	480	ISO 604
Tensile strength	MPa	300	ISO 527
Electrical properties			
Insulation resistance after immersion in water	Ohm	1.00E+12	IEC 62631-3-3
Breakdown voltage // 90°C in oil	kV	80	IEC 60243-1
Electric strength ⊥ 90°C in oil	kV/mm	18	IEC 60243-1
Relative permittivity at 1 MHz		4.8	IEC 62631-2-1
Dissipation factor at 1 MHz		0.02	IEC 62631-2-1
Comparative tracking index CTI		350	IEC 60112
Thermal properties			
Temperature index (TI)	°C	130	IEC 60216
Thermal conductivity	W/m·K	0.3	ISO 8301
Linear expansion coefficient //	1.0E-6/K	15	ISO 11359-2
Physical properties			
Density	g/cm ³	1.85	ISO 1183
Water absorption	mg/%	9/0.05	ISO 62

Form of delivery

Sheet formats:
1170 x 1070 mm
2070 x 1070 mm (up to 40 mm thick)
4300 x 1300 mm (untrimmed)
Size tolerance 0 / - 30 mm

Thickness range 0.2 to 150 mm
Thickness tol. acc. to DIN EN 60893-3-2

Also available as panels or machined parts.
Other dimensions and thicknesses on request.

Machining

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

The data supplied are typical values. They are not to be considered specification values. All of the information, suggestions, and recommendations about these properties and uses of the products herein are based on tests and data believed to be accurate; however, the final determination regarding the suitability of any material described herein for the contemplated application, the manner of such use, and whether the use infringes any patents is the sole responsibility of the user. There is no warranty - expressed or implied - including, without limitation, warranties of merchantability or fitness for a particular purpose. Under no circumstances shall we be liable for incidental or consequential loss or damage.

VRI Composites custom fabricates insulation materials to the exact specifications and drawings specified by our customers. We offer our customers the proper product for their specific application. A variety of dimensions and diameter sizes are available. Product colors vary according to material type.