

Laminate



EP 105

- High pressure laminate for requirements between the standard types of FR-3 and FR-4
- Good cold punchability at mechanical properties
- Low water absorption
- Defined burning rate acc. to UL94, class V0.
UL file: E47629

	Unit	Value	Test norm
Mechanical properties			
Flexural strength	MPa	350	ISO 178
E-Modulus	MPa	13000	ISO 178
Tensile strength	MPa	140	ISO 527
Electrical properties			
Insulation resistance after immersion into water	Ohm	1.0E+12	IEC 62631-3-3
Breakdown voltage //, 90°C in oil	kV	60	IEC 60243-1
Electric strength $\perp$, 90°C in oil	kV/mm	15	IEC 60243-1
Comparative tracking index CTI	V	250	IEC 60216
Thermal properties			
Thermal conductivity	W/m.K	0.2	ISO 8301
Linear expansion coefficient //	1.0E-6/K	15	ISO 11359-2
Temperature index (TI)	°C	130	IEC 60216
Physical properties			
Density*	g/cm ³	1.65 / 1 mm	ISO 1183
Water absorption	mg/%	11/0.25	ISO 62

*Density depends on thickness

Description

EP 105 is a sandwich laminate consisting of an epoxy paper core and glass epoxy cover layers.

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.

Specifications

NEMA LI-1

CEM1

Color

White

Applications

Punched parts
Electrical insulation

Form of delivery

Sheet formats 1170 x 1070 and 2070 x 1070 mm

Size tolerance 0 / - 30 mm

Thickness range 0.8 to 30 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 tools.

For water jet cutting we recommend adding 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.

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