

Laminated Insulations & Plastics Ltd.

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Technical Data Sheet

Epoxy Glass Sheet FR4

Mechanical Characteristics	Test Method	Test Conditions	Value
Flexural strength	ISO 178	23°C / 50%rF	450 MPa
Flexural strength at High temperature	ISO 178	1h / 150°C	450 MPa
Modulus of elasticity	ISO 178	23°C / 50%rF	2400 MPa
Notched impact of strength	ISO 179	23°C / 50%rF	55 k.m ⁻²
Tensile strength	ISO 527	23°C / 50%rF	300 MPa
Compressive strength	ISO 604	23°C / 50%rF	300/420 MPa
Interlaminar bonding strength	DIN 53463	23°C / 50%rF	4500 N
Shear strength	ISO 893	23°C / 50%rF	30/120 MPa
Electrical Characteristics			
Insulation resistance	IEC 167	24h50°C + 24h50°C Water	1,00E+12Ω
Edgewise breakdown voltage	IEC 243	1h 150°C+90°C Oil	80 kV
Flat wise electrical strength	IEC 243	1h 150°C+90°C Oil	6 kV.mm ⁻²
Dissipation factor at 1MHz	IEC 250	23°C / 50%rF	0.020
Relative permittivity at 1 MHz	IEC 250	23°C / 50%rF	4.8
Comparative tracking index CTI	IEC 112	23°C / 50%rF	200 V
Thermal Characteristics			
Temperature index	IEC 216		130°C
Thermal conductivity	DIN 52612	20-100°C	0.3 W/m K
Coefficient of linear expansion	VDE 0304	20-130°C	15 x 10 ⁻⁶ / k
Other Characteristics			
Density	ISO 1183	23°C / 50%rF	1.92 g.cm ⁻³
Flammability	UL94	23°C / 50%rF	
Water absorption	ISO 62	24h50°C + 24h50°C Water	10 mg
Water absorption	ISO 62	24h50°C + 24h50°C Water	0.05%
Colour			Light Green

These are typical average values and do not constitute a specification. It is the responsibility of the customer to assess the suitability of the product for use.