

Technical Data Sheet

Lignostone[®] L I/2-E3-SQ (PIR)

Laminated Densified Wood

Typical characteristics

- Laminated densified wood PIR according to the standard IEC 61061
- Standard quality red beech veneer; parallel stacked
- High mechanical strength at low density

Typical industries

- Transformer
- Electrical Industry
- Electrical Insulating Components
- Oil-filled transformers

	Test method	Unit	Guideline value
Mechanical properties			
Density	IEC 61061	g / cm ³	0.85
Flexural strength ¹⁾ ⊥	ISO 178	MPa	140
Modulus of elasticity in flexion ¹⁾ ⊥	IEC 61061	MPa	11000
Compressive strength ⊥	ISO 604	MPa	100
Compressive strength II	ISO 604	MPa	55
Shear strength II	IEC 61061	MPa	8
Thermal properties			
Thermal conductivity	DIN 52612	W/m K	0.22
Operating temperature continuous	DIN 7707	°C	105
Temperature limit when drying	DIN 7707	°C	130
Physical properties			
Oil absorption	IEC 61061	%	30
Moisture content	IEC 61061	%	5
Dielectrical properties			
Electric strength 90°C under oil ⊥	IEC 61061	kV / mm	15
Electric strength 90°C under oil II	IEC 61061	kV/25mm	70
Relative permittivity (50 Hz)	IEC 60250	ε _r	3.7
Dielectric loss factor (50 Hz)	IEC 60250	tan δ	0.01



	Test method	Unit	Guideline value
Specific volume resistance	IEC 60093	$\Omega \times \text{cm}$	10^{12}

= perpendicular to the lamination
|| = parallel to the lamination

¹⁾ Minimum 4 longitudinal layers in the tension zone

