

Technical Data Sheet

Lignostone[®] L I/2-E3-HQ (PIR)

Typical characteristics

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

Typical industries

- Transformer
- Electrical Industry
- Electrical Insulating Components
- Lignostone Transformerwood - for transformers
- Oil-filled transformers

	Test method	Unit	Guideline value
Mechanical properties			
Density	IEC 61061	g / cm ³	0,85
Flexural strength ^{1) ⊥}	IEC 61061	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	%	25
Moisture content	IEC 61061	%	5
Dielectrical properties			
Electric strength 90°C under oil [⊥]	IEC 61061	kV / mm	17
Electric strength 90°C under oil II	IEC 61061	kV/25mm	80
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

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Print: 27/07/2024 • Release: 20/09/2023 • Version: 3.0

PIM-Version: 14 • PIM-ID: 751418 • PIM-Code: 14-32-8.11.8-5.11.7.7.6-16

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