Technical Data Sheet

Lignostone® L I/2-E3-HQ (P1R)

Laminated Densified Wood

Typical characteristics

- Laminated densified wood P1R 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	Ω x cm	10^{12}

$^{\perp}$ = perpendicular to the lamination
II = parallel to the lamination

[1] Minimum 4 longitudinal layers in the tension zone

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