

Technical Data Sheet

Lignostone[®] M I/2-E3-SQ

Typical characteristics

- Very high mechanical strength at medium density
- Laminated densified wood P4R according to the standard IEC 61061
- Standard quality red beech veneer; parallel stacked

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	1,25
Flexural strength ^{1) ⊥}	IEC 61061	MPa	200
Modulus of elasticity in flexion ^{1) ⊥}	IEC 61061	MPa	16000
Compressive strength [⊥]	ISO 604	MPa	120
Compressive strength II	ISO 604	MPa	90
Shear strength II	IEC 61061	MPa	11
Thermal properties			
Thermal conductivity	DIN 52612	W/m K	0,22
Operating temperature continuous	DIN 7707	°C	100
Temperature limit when drying	DIN 7707	°C	130
Physical properties			
Oil absorption	IEC 61061	%	7
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	4,1
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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