

## Technical Data Sheet

## Lignostone® L I/2-E3-SQ (P2R)

### Typical characteristics

- Laminated densified wood P2R 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
- Lignostone Transformerwood - for transformers
- Oil-filled transformers

	Test method	Unit	Guideline value
<b>Mechanical properties</b>			
Density	IEC 61061	g / cm <sup>3</sup>	0,95
Flexural strength <sup>1)</sup> ⊥	IEC 61061	MPa	150
Modulus of elasticity in flexion <sup>1)</sup> ⊥	IEC 61061	MPa	12000
Compressive strength ⊥	ISO 604	MPa	120
Compressive strength II	ISO 604	MPa	70
Shear strength II	IEC 61061	MPa	10
<b>Thermal properties</b>			
Thermal conductivity	DIN 52612	W/m K	0,22
Operating temperature continuous	DIN 7707	°C	105
Temperature limit when drying	DIN 7707	°C	130
<b>Physical properties</b>			
Oil absorption	IEC 61061	%	25
Moisture content	IEC 61061	%	5
<b>Dielectrical properties</b>			
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 <sub>r</sub>	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

<sup>1)</sup> Minimum 4 longitudinal layers in the tension zone

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