# Technical Data Sheet

# Lignostone® M I-2-E3-HQ

Laminated Densified Wood

## Typical characteristics

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

## Typical industries

- 变压器
- 电气行业
- 电气绝缘元件
- 油浸式变压器

| | 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 | 17 |
| Electric strength 90°C under oil II | IEC 61061 | kV/25mm | 80 |
| Relative permittivity (50 Hz) | IEC 60250 | $\varepsilon_r$ | 4.1 |
| Dielectric loss factor (50 Hz) | IEC 60250 | tan δ | 0.01 |

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| | Test method | Unit | Guideline value |
|---|---|---|---|
| Specific volume resistance | IEC 60093 | Ω x cm | $10^{12}$ |

⊥ = perpendicular to the lamination
II = parallel to the lamination

[1)] Minimum 4 longitudinal layers in the tension zone

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