# Technical Data Sheet

# Lignostone® M X-2-E3-HQ

Kunstharzpressholz

## Typical characteristics

- High mechanical strength at medium density
- High red beech veneer quality; tangential stacked
- Laminated densified wood T4R according to the standard IEC 61061

## Typical industries

- Transformateurs à huile
- Composants d'isolation électrique
- Industrie de l'équipement électrique

| | Test method | Unit | Guideline value |
|---|---|---|---|
| **Mechanical properties** | | | |
| Densité | ISO 1183 | g / cm$^3$ | 1.25 |
| Flexural strength [1] ⊥ | ISO 178 | MPa | 180 |
| Modulus of elasticity in flexion ⊥ | ISO 178 | GPa | 13 000 |
| Compressive strength ⊥ | ISO 604 | MPa | 140 |
| Compressive strength II RT | ISO 604 | MPa | 100 |
| Shear strength II | IEC 61061 | MPa | 15 |
| **Thermal properties** | | | |
| Thermal conductivity | DIN 52612 | W/m K | 0.22 |
| Operating temperature | | °C | 105 |
| 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 |
| Specific volume resistance | IEC 60093 | Ω x cm | $10^{12}$ |

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

[1)] Sample size for flexural strength and modulus of elasticity in flexure is 120 x 15 x 10 mm (Mechanical value depends on the average ring diameter)

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