

## Technical Data Sheet

# Lignostone<sup>®</sup> M II-2-E3-SQ

Laminated Densified Wood

### Typical characteristics

- High mechanical strength at medium density
- Laminated densified wood C4R according to the standard IEC 61061
- Standard quality red beech veneer; crosswise stacked

### 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> | 1.25             |
| Flexural strength <sup>⊥</sup>                   | IEC 61061   | MPa                 | 130              |
| Modulus of elasticity in flexion <sup>1) ⊥</sup> | IEC 61061   | MPa                 | 11               |
| Compressive strength <sup>⊥</sup>                | ISO 604     | MPa                 | 230              |
| Compressive strength II                          | ISO 604     | MPa                 | 90               |
| Shear strength II                                | IEC 61061   | MPa                 | 15               |
| <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   | %                   | 7                |
| Moisture content                                 | IEC 61061   | %                   | 5                |
| <b>Dielectrical properties</b>                   |             |                     |                  |
| Electric strength 90°C under oil <sup>⊥</sup>    | 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>      | 4.1              |
| Dielectric loss factor (50 Hz)                   | IEC 60250   | tan δ               | 0.01             |
| Specific volume resistance                       | IEC 60093   | Ω x cm              | 10 <sup>12</sup> |

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⊥ = perpendicular to the lamination || = parallel to the lamination

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Page 2 / 2 (Dates in DD/MM/YYYY)

