# Technical Data Sheet

# Durostone® EPC 205

GFK-EP

## Typical characteristics

- High-pressure laminate
- High dielectric strength
- High mechanical strength
- Flame retardant
- Special epoxy (EP) resin matrix reinforced with an e-glass roving fabric

## Typical industries

- Generator and Motor
- 전기 산업
- Electrical Insulating Components
- Healthcare
- HVDC Transmission
- Hydrogen Energy
- Semiconductor High and low temperature

| | Test method | Unit | Guideline value |
|---|---|---|---|
| **Mechanical properties** | | | |
| Density | ISO 1183 | g / cm$^3$ | 2,05 |
| Flexural strength ⊥ | ISO 178 | MPa | 600 |
| Flexural strength ⊥ +150°C | ISO 178 | MPa | 500 |
| Modulus of elasticity in flexion ⊥ | ISO 178 | MPa | 30000 |
| Modulus of elasticity in flexion ⊥ +150°C | ISO 178 | MPa | 26000 |
| Compressive strength ⊥ | ISO 604 | MPa | 600 |
| Compressive strength II | ISO 604 | MPa | 450 |
| Tensile strength II | ISO 527 | MPa | 450 |
| Impact strength II (Charpy) | ISO 179 | kJ / m$^2$ | 300 |
| **Thermal properties** | | | |
| Flammability | UL 94 | / | V0 / 3mm |
| Temperature index | IEC 60216 | T.I. | 180 |
| Insulation class | IEC 60085 | / | H |
| **Physical properties** | | | |
| Water absorption (method 1) | ISO 62 | % | 0,2 |
| **Dielectrical properties** | | | |
| Electric strength 90°C under oil ⊥ | IEC 60243 | kV / mm | 13 |

| | Test method | Unit | Guideline value |
|---|---|---|---|
| Electric strength 90°C under oil II | IEC 60243 | kV/25mm | 70 |
| Relative permittivity (50 Hz) | IEC 60250 | $\varepsilon_r$ | 5 |
| Dielectric loss factor (50 Hz) | IEC 60250 | tan δ | 0,04 |
| Specific surface resistance | IEC 60093 | Ω | $10^{12}$ |
| Specific volume resistance | IEC 60093 | Ω x cm | $10^{14}$ |
| Comparative tracking index (test solution A) | IEC 60112 | CTI | 600 |
| Insulation resistance after 24 h water immersion | IEC 60167 | Ω | $10^{10}$ |

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

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