

INBORD® E-GS

Composition

Phenol / melamine laminate, reinforced with layers of glass cloth, having a tracking resistant decorative surface.

Properties

Due to layers of glass cloth INBORD® E-GS has improved mechanical properties compared with standard paper based laminate. The values of dielectric strength are similar to PFCP according IEC 60893 and HP 2061.6 acc. DIN 7735. The melamine surface gives an excellent tracking resistance and does not fade during exposure to light.

INBORD® E-GS is available in different surface colours.

Application

INBORD® E-GS is used as insulating construction material as cell partition for medium and high voltage switchgears. The improved mechanical strength provides more safety against burst in case of short circuit.

Technical Data

| Properties | Testmethod | Unit | Value |
|---|------------|-------------------|-------------------|
| Density | ISO 1183/A | g/cm ³ | approx. 1.45 |
| Flexural strength | ISO 178 | MPa | 200 |
| Flexural modulus of elasticity | ISO 178 | MPa | 15000 |
| Compressive strength perpendicular to laminations | ISO 604 | MPa | 300 |
| Impact strength parallel to laminations a_{n15} | DIN 53453 | kJ/m ² | 20 |
| Tensile strength | ISO 527 | MPa | 140 |
| Electric strength at 23°C in oil perpendicular to laminations (thickness 3mm) | IEC 243 | kV/mm | 10 |
| Breakdown voltage at 90°C in oil parallel to laminations | IEC 243 | kV | 30 |
| Permittivity at 50 Hz | IEC 250 | - | approx. 5 |
| Dissipation factor at 50 Hz and 1 MHz | IEC 250 | - | < 0,08 |
| Insulation resistance after immersion in water | IEC 167 | Ohm | > 10 ⁹ |
| Comparative tracking index (on surface) | IEC 112 | - | CTI 600 |
| Thermal endurance | IEC 216 | T.I. | 120 |
| Water absorption (thickness 10 mm) | ISO 62 / 1 | mg | < 200 |
| Flammability (thickness 8 mm and above) | UL 94 | - | V0 |

Availability

Thickness: 4 - 20 mm
 Thickness tolerance: acc. IEC 60893 (as PF CP 201)
 Sheetsize: 2800 x 1300 mm (mat surface) tolerance: +30/-0 mm
 Other sheetsize upon request

Colour: 741 uni birch grey
 76 uni ligh grey
 Other colours upon request.