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Lamitex® G-30 Sheet Technical Data

Lamitex® glass filled G-30 Polyimide high pressure laminate sheets are the most temperature resistant laminate made. G-30 is most frequently used where high mechanical and electrical strengths, dimensional stability and low thermal conductivity at high continuous application temperatures are required.

| | Conditioning | | Test Specimen | Values |
|--|-----------------------|------------|---------------|------------------------|
| | Mechanical Properties | IEC 212 | | |
| Flexural Strength | 1 | ISO 178 | ≥ 1,6 mm | 450 MPa |
| Flexural Strength at Elevated Temperatures | E | ISO 178 | ≥ 1,6 mm | 360 ^(a) MPa |
| Modulus of Elasticity | 1 | ISO 178 | ≥ 1,6 mm | 25.000 MPa |
| Compressive Strength | 1 | ISO 604 | ≥ 5,0 mm | 650 MPa |
| Izod Impact Strength Parallel | 1 | ISO 180/2A | ≥ 5,0 mm | 55 kJ/m ² |
| Shearing Strength Parallel | 1 | EN 60893-2 | ≥ 5,0 mm | 70 MPa |
| Tensile Strength | 1 | ISO 527 | ≥ 1,6 mm | 300 MPa |
| Electrical Properties | | | | |
| Electric Strength in oil @ 90°C: | | | | |
| Perpendicular to Laminations | 2 | IEC 243-1 | 3,0 mm thk | 20,0 kV/mm |
| Parallel to Laminations | 2 | IEC 243-1 | > 3,0 mm thk | 60 kV/25 mm |
| Insulation Resistance after Immersion in Water | 4 | IEC 167 | All | 1.000 M ohm |
| Permittivity: 50Hz | 3 | IEC 250 | ≤ 3,0 mm thk | 4,0 |
| Dissipation Factor: 50Hz | 3 | IEC 250 | ≤ 3,0 mm thk | 0,01 |
| Comparative Tracking Index | 1 | IEC 112 | ≥ 3,0 mm thk | 250 CTI |
| Physical and Thermal Properties | | | | |
| Maximum Operating Temperature: Electrical/Mechanical | | | | 240°C/240°C |
| UL Flammability Rating | 1 | IEC 216 | 3,0 mm thk | 94-V0 |
| Density | 1 | IEC 1183-A | All | 1,95 g/cm ³ |
| Water Absorption | 1 | ASTM D570 | 1.5 mm | <.35% |

Conditioning: 1: 24h @ 23°C & 50%RH
2: 24h @ 23°C & 50%RH + 1hr in oil at 90°C
3: 96h @ 105°C + 1hr @ 23°C & 20%RH
4: 24h @ 50°C + 24hr in water at 23°C

Note: (a) 1h @ 200°C / measured at 200°C

The standard sheet size is 1250 mm x 1250 mm and thicknesses manufactured are 0,15 mm to 150 mm

All values are average test results from extensive testing of typical production material. No warranty is implied or guaranteed and testing is recommended for each application.

Composite Tubes • Bearings • Molded Shapes • Rotary Vanes • Fabricated Parts • Vulcanized Fibre • High Temp Insulation

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