

M - 003

| TECHNICAL DATA SHEET | | APPLICATIONS | CHARACTERISTICS |
|--|---------------------|---|---|
| CTE Material name: LONBEL® ECTFE ETHYLENE CHLORO TRIFLUORO ETHYLENE (ECTFE) n.t.= Not tested | | Food production industry Clean room and semi conductor industries Electrical industry Chemical engineering and tank building | Excellent weather and chemical resilience, high flame retardant. High tensile strength, stiffness, cold impact, continuous service temperature and high purity |
| GENERAL PROPERTIES | | Unit | Test method |
| | | | Value |
| | | | ECTFE |
| Density | g/cm ³ | DIN EN ISO 1183-1 | 1,71 |
| Water absorption | % | DIN EN ISO 62 | 0 |
| Flammability | | UL 94 | VO /VO |
| MECHANICAL PROPERTIES | | | |
| Yield stress | Mpa | DIN EN ISO 527 | 30 |
| Elongation at break | % | DIN EN ISO 527 | 250 |
| Tensile modulus of elasticity | Mpa | DIN EN ISO 527 | 1500 |
| Notched impact strength | kJ/m ² | DIN EN ISO 179 | n.t. |
| Shore hardness | scale D | DIN EN ISO 868 | 71 |
| Rockwell hardness | scale R | DIN EN ISO 2039-2 | n.t. |
| THERMAL PROPERTIES | | | |
| Thermal conductivity | W/(m*K) | DIN 52612-1 | 0,15 |
| Thermal capacity | KJ/(kg*K) | DIN 52612 | n.t. |
| Coefficient of linear thermal expansion | 10 ⁻⁶ /K | DIN 53752 | 90 |
| Service temperature long term | °C | Average | -50 / 150 |
| Service temperature short term max. | °C | Average | 180 |
| Vicat softening temperature | °C | DIN EN ISO 306, Vicat B | n.t. |
| Heat deflection temperature | °C | DIN EN ISO 75, Verf. A, HDT | 70 |
| ELECTRICAL PROPERTIES | | | |
| Volume resistivity | Ω | DIN EN 61340 | n.t. |
| Surface resistivity | Ω | DIN EN 61340 | n.t. |
| Volume resistivity | Ω * cm | IEC 60093 | 10 ¹⁵ |
| Surface resistivity | Ω | IEC 60093 | 10 ¹⁵ |
| Dielectric constant | | IEC 60250 | n.t. |
| Dielectric dissipation factor (50 Hz) | | IEC 60250 | n.t. |
| Comparative tracking index | | IEC 60112 | 600 |
| Dielectric strength | Kv/mm | IEC 60243 | 15 |