

TECHNICAL DATA SHEET

PEEK

| I. Physical Properties | | | | | |
|--|----------|-------------|---|---------------------|----------|
| | | Test method | | Unit | Value |
| 1. Specific gravity | | ISO 1183 | | g/cm ³ | 1,32 |
| 2. Water absorption | | ISO 62 | | % | 0,1 |
| 3. Chemical resistance | | - | | - | - |
| 4. Maximum permissible service temp. | | | | | - |
| (no stronger mechanical stress involved) | | - | | | - |
| Upper temperature limit | | - | | °C | 260 |
| Lower temperature limit | | - | | °C | -40 |
| II. Mechanical Properties | | | | | |
| 1. Tensile strength at yield | | ISO 527 | | MPa | 95 |
| 2. Elongation at yield. | | ISO 527 | | % | - |
| 3. Tensile strength at break | | ISO 527 | | MPa | - |
| 4. Elongation at break | | ISO 527 | | % | 25 |
| 5. Impact strength | | ISO 179 | | kJ/m ² | no break |
| 6. Notch impact strength | | ISO 179 | | kJ/m ² | - |
| 7. Ball indentation / Rockwell hardness | | ISO 2039-1 | | MPa | - / M 99 |
| 8. Shore-D | | DIN 53505 | | | 90 |
| 9. Flexural strength | | ISO 178 | | MPa | 170 |
| 10. Modulus of elasticity | | ISO 527 | | MPa | 3000 |
| III. Thermal Properties | | | | | |
| 1. Vicat-softening point | VST/B/50 | ISO 306 | | °C | 250 |
| | VST/A/50 | | | °C | - |
| 2. Heat deflection temperature HDT/B | | ISO 75 | | °C | 182 |
| | HDT/A | | | °C | 140 |
| 3. Coefficient of linear thermal expansion | | DIN 53752 | K | -1*10 ⁻⁴ | 0,5 |
| 4. Thermal conductivity at 20 °C | | | | W/(m*K) | 0,25 |
| IV. Electrical Properties | | | | | |
| 1. Volume resistivity | | VDE 0303 | | Ω*cm | >= 1016 |
| 2. Surface resistivity | | | | Ω | >= 1015 |
| 3. Dielectric constant at 1MHz | | | | - | 3,2 |
| 4. Dielectric loss factor at 1 MHz | | DIN 53483 | | - | 0,003 |
| 5. Dielectric strength | | VDE 0303 | | kV/mm | 20 |
| 6. Tracking resistance | | IEC 60122 | | - | CTI 150 |
| V. Additional Data | | | | | |
| 1. Bond ability | | | | - | + |
| 2. Friction coefficient | | DIN 53375 | | - | 0,34 |
| 3. Flammability | | UL 94 | | - | V-0 |
| 4. UV stabilisation | | - | | - | fair |

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