# Technical Data Sheet
# GEHR PEEK-mod

## I. Physical Properties

|  | Test method | Unit | Value |
|---|---|---|---|
| 1. Specific gravity (ρ) | ISO 1183 | g/cm³ | 1,48 |
| 2. Water absorption | ISO 62 | % | 0,06 |
| 3. Maximum permissible service temp | - | - | - |
| (no stronger mechanical stress involved) |  |  |  |
| Upper temperature limit | - | °C | 260 |
| Lower temperature limit | - | °C | -40 |

## II. Mechanical Properties

|  | Test method | Unit | Value |
|---|---|---|---|
| 1. Tensile strength at yield | ISO 527 | MPa | 141 |
| 2. Elongation at yield. ($\varepsilon_S$) | ISO 527 | % | - |
| 3. Tensile strength at break ($\sigma_R$) | ISO 527 | MPa | 118 |
| 4. Elongation at break ($\varepsilon_R$) | ISO 527 | % | 3 |
| 5. Impact strength ($a_n$) | ISO 179 | kJ/m$^2$ | 27,5 |
| 6. Notch impact strength ($a_k$) | ISO 179 | kJ/m$^2$ | 6,3 |
| 7. Ball indentation / Rockwell hardness | ISO 2039-1 | MPa | - |
| 8. Shore-D | DIN 53505 |  | 87 |
| 9. Flexural strength ($\sigma_{B\,3,5\,\%}$) | ISO 178 | MPa | 210 |
| 10. Modulus of elasticity ($E_t$) | ISO 527 | MPa | 8100 |

## III. Thermal Properties

|  |  | Test method | Unit | Value |
|---|---|---|---|---|
| 1. Vicat-softening point | VST/B/50 | ISO 306 | °C | - |
|  | VST/A/50 | ISO 306 | °C | - |
| 2. Heat deflection temperature | HDT/B | ISO 75 | °C | 293 |
|  | HDT/A | ISO 75 | °C | 277 |
| 3. Coefficient of linear thermal expansion α | | DIN 53752 | $K^{-1}*10^{-4}$ | 0,22 |
| 4. Thermal conductivity at 20 °C (λ) | | DIN 52612 | W/(m*K) | 0,24 |

## IV. Electrical Properties

|  | Test method | Unit | Value |
|---|---|---|---|
| 1. Volume resistivity | VDE 0303 | Ω*cm | $\geq 10^5$ |
| 2. Surface resistivity ($R_o$) | VDE 0303 | Ω | $\geq 10^7$ |
| 3. Dielectric constant at 1MHz ($\varepsilon_r$) | DIN 53483 | - | - |
| 4. Dielectric loss factor at 1 MHz (tanδ) | DIN 53483 | - | - |
| 5. Dielectric strength | VDE 0303 | kV/mm | 24,5 |
| 6. Tracking resistance | IEC 60122 | - | - |

## V. Additional Data

|  | Test method | Unit | Value |
|---|---|---|---|
| 1. Bond ability | - | - | Fair |
| 2. Friction coefficient | DIN 53375 | - | 0,11 |
| 3. Flammability | UL 94 | - | V-0 |
| 4. UV stabilisation | - | - | **+** |

All values are attributes of the used raw materials.

The physical data contained in this table are typical values. They are obtained on test specimens under specific conditions and represent average values of a large number of tests. The results obtained on this tests specimens cannot be applied to finished parts without reservations, as behaviour is influenced by processing and shaping. Reproduction only with our definite permission.