

Technical Data Sheet **GEHR PA 6 FR®**

| Physical Properties | Test Method | Unit | Value |
|--|-------------|-------------------|-------|
| Specific Gravity | ISO 1183 | g/cm ³ | 1,17 |
| Humidity Absorption | ISO 62 | % | 2,5 |
| Maximum Permissible Service Temperatur | UL746B | °C | 100 |

| Mechanical Properties | Test Method | Unit | Value |
|--------------------------------------|-------------|-------------------|-------|
| Tensile Strength at Yield | ISO 527 | MPa | 80 |
| Elongation at Yield | ISO 527 | % | 5 |
| Tensile Strength at Break | ISO 527 | MPa | 75 |
| Elongation at Break | ISO 527 | % | 8 |
| Impact Strength | ISO 179 | kJ/m ² | n.B. |
| Notch Impact Strength | ISO 179 | kJ/m ² | 6 |
| Ball Indentation Hardness / Rockwell | ISO 2039 | MPa | 175 |
| Flexural Strength | ISO 178 | MPa | 120 |
| Tensile Modulus | ISO 527 | MPa | 4000 |

| Thermal Properties | Test Method | Unit | Value |
|---|-------------|-----------------------------------|-------|
| Vicat Softening Temperature (VST/B/50) | ISO 306 | °C | 190 |
| (VST/A/50) | ISO 306 | °C | 80 |
| Coefficient of Linear Thermal Expansion | ISO 11359 | K ⁻¹ *10 ⁻⁴ | - |
| Thermal Conductivity at 20 °C | ISO 22007-4 | W/(m*K) | - |
| Melt Temperature | ISO 3146 | °C | 220 |

| Electrical Properties | Test Method | Unit | Value |
|---------------------------------|-------------|------|--------------------|
| Volume Resistivity | IEC 60093 | Ω*cm | ≥ 10 ¹⁴ |
| Surface Resistivity | IEC 60093 | Ω | ≥ 10 ¹⁴ |
| Dielectric Constant at 1 MHz | IEC 60250 | - | 3,7 |
| Dielectric loss factor at 1 MHz | IEC 60250 | - | 0,02 |
| Tracking Resistance | IEC 60112 | V | CTI 600 |

| Additional Data | Test Method | Unit | Value |
|-------------------------------------|----------------------|------|-------|
| Flammability | UL 94 at 0,75mm | - | V-0 |
| | UL 94 at 3 mm | - | V-0 |
| Inflammability (GWF1) | IEC-60695 at 0,75 mm | °C | 960 |
| | IEC-60695 at 1,5 mm | °C | 960 |
| R22 HL1 HL2, R23 HL3 | EN 45545-2 | | |
| 60 sek. Vertical Bunsen burner test | FAR 25.853 at ?mm | | |
| 15 sek. Vertical Bunsen burner test | FAR 25.853 at ?mm | | |
| Heat release FAR Teil 25 | FAR 25.853 at ?mm | | |
| Smoke density FAR Teil 25 | FAR 25.853 at ?mm | | |

These values have been generated by qualified parties and contain our current experience. They can therefore be described as applicable to a high degree, without being mandatory for every case of application. The values given are average values which are verified by systematic tests. The characteristic values correspond to the specifications of DIN EN 15860 and may vary on the finished product. These are guide values and not guaranteed properties which are only intended to provide information about our products and to assist in the selection of materials. In case of missing measured values, raw material data or literature values were used, if available. Subject to change.

n.B. = No Break

+ = Yes

o = Limited

- = No / No Data Available