

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
Glow wire test (GWFI)	IEC-60695 at 0,75 mm	°C	960
	IEC-60695 at 1,5 mm	°C	960
Fire protection, railway applications	EN 45545-2	R22 R23	HL1, HI2 HL1, HL2, HL3

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