Technical Data Sheet MEDI GEHR PEEK MG®

Physical Properties	Test Method	Unit	Value
Specific Gravity	ISO 1183	g/cm³	1,32
Water Absorption	ISO 62	%	0,4
Humidity Absorption	ISO 62	%	0,07
Maximum Permissible Service Temperatur	UL746B	°C	260

Mechanical Properties	Test Method	Unit	Value
Tensile Strength at Yield	ISO 527	MPa	115
Elongation at Yield	ISO 527	%	7
Tensile Strength at Break	ISO 527	MPa	67
Elongation at Break	ISO 527	%	16
Impact Strength	ISO 179	kJ/m²	n.B.
Notch Impact Strength	ISO 179	kJ/m²	4
Ball Indentation Hardness / Rockwell	ISO 2039	MPa	250 / M 99
Shore Hardness	ISO 868	Scale D	90
Flexural Strength	ISO 178	MPa	170
Tensile Modulus	ISO 527	MPa	4210

Thermal Properties	Test Method	Unit	Value
Vicat Softening Temperature (VST/B/50)	ISO 306	°C	250
Heat Deflection Temperature (HDT/B)	ISO 75	°C	240
(HDT/A)	ISO 75	°C	158
Coefficient of Linear Thermal Expansion	ISO 11359	$K^{-1}*10^{-4}$	0,47
Thermal Conductivity at 20 °C	ISO 22007-4	W/(m*K)	0,25
Glass Transition Temperature	ISO 3146	°C	143
Melt Temperature	ISO 3146	°C	340

Electrical Properties	Test Method	Unit	Value
Volume Resistivity	IEC 60093	Ω*cm	≥ 10^{13}
Surface Resistivity	IEC 60093	Ω	≥ 10^{13}
Dielectric Constant at 1 MHz	IEC 60250	-	3,2
Dielectric loss factor at 1 MHz	IEC 60250	-	0,003
Dielectric Strength	IEC 60243-1	kV/mm	16
Tracking Resistance	IEC 60112	V	CTI 125

Additional Data	Test Method	Unit	Value
Physiological Safety	EEC FDA	- -	+ +
Biocompatibility	ISO 10993 USP	-1, -5, -12, -18 -Class VI	+ +
Flammability	UL 94	-	V-0
Limiting Oxygen Index (LOI)	ASTM D2863	%	35

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

GEHR GmbH
Casterfeldstraße 172
D - 68219 Mannheim
T: +49 - 621/87 89 – 0
application.technology@gehr.de