

Technical Data Sheet

PEEK MG natural

PEEK, medical grade (natural)

Typical Properties

- Medical grade
- Premium material for continuous use up to around 250 °C

Typical Industries

- Medical Technology

	Test Method	Unit	Value
General Properties			
Density	DIN EN ISO 1183-1	g / cm ³	1.31
Water absorption	DIN EN ISO 62	%	0.200
Flammability (Thickness 3 mm / 6 mm)	UL 94		V0 / V0
Mechanical Properties			
Yield stress	DIN EN ISO 527	MPa	110
Elongation at break	DIN EN ISO 527	%	20
Tensile modulus of elasticity	DIN EN ISO 527	MPa	4.000
Ball indentation hardness	DIN EN ISO 2039-1	MPa	230
Shore hardness	DIN EN ISO 868	scale D	88
Thermal Properties			
Melting temperature	ISO 11357-3	°C	343
Thermal conductivity	DIN 52612-1	W / (m * K)	0.25
Thermal capacity	DIN 52612	kJ / (kg * K)	1.34
Coefficient of linear thermal expansion	DIN 53752	10 ⁻⁶ / K	50
Service temperature, long term	Average	°C	-60 ... 250
Service temperature, short term (max.)	Average	°C	310
Heat deflection temperature	DIN EN ISO 75, Verf. A, HDT	°C	152

The specified values are average values obtained from individual measurements and are up to the latest standards. They are intended merely as information about our products and as an aid to the selection of material. We therefore cannot legally bindingly vouch for specific properties or suitability for specific purposes, as properties may also depend, for example, on the dimensions of the semi-finished products. The short-time maximum operating temperature applies only to applications that involve a low mechanical load during a few hours only. The long-term maximum operating temperature is based on the heat-ageing of the plastics through oxidation, which results in a reduction of the mechanical properties. On thick-walled parts only the surface layer - which can be better protected by the addition of antioxidants - is affected by oxidation at high temperatures. The core normally remains unimpaired. The short-term and long-term maximum operating temperatures depend on pressure and media. The minimum operating temperature is mainly determined by possible impact and shock stresses during operation. The specified values apply to low stresses.