

Physical properties PEEK MG natur

Product characteristics:

- High purity
- Very good sterilisation resistance
- ISO 10993 tested on semi-finished product

Product applications:

- Medical engineering
- Pharmaceutical industry
- Precision mechanics

General properties	Test method	Unit	Value
Color			natur
Density	DIN EN ISO 1183-1	g/cm ³	1.31
Water absorption	DIN EN ISO 62	%	0.2
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	4000
Shore hardness	DIN EN ISO 868	scala D	88
Thermal properties			
Crystalline grain melting range	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
Electrical properties			
Dielectric constant	IEC 60250		3.2
Dielectric dissipation factor (50 Hz)	IEC 60250		0.001
Volume resistivity	IEC 60093	Ω*cm	4.9*10 ¹⁶
Surface resistivity	IEC 60093	Ω	10 ¹⁸
Dielectric strength	IEC 60243	kV / mm	20

This table is a valuable help in the choice of a material. The data listed here fall within the normal range of products properties, but they should not be used to establish material specification limits nor used alone as the basis of design.