



# PEEK

PEEK (Polyetheretherketone)

Colour: Natural

Density: 1.31g/cm<sup>3</sup>

## Material Data Sheet

Mechanical Properties	Parameter	Value	Unit	DIN/EN/ISO
Modulus of elasticity (tensile test)	1mm/min	4200	MPa	527-2
Tensile strength	50mm/min	116	MPa	527-2
Tensile strength at yield	50mm/min	116	MPa	527-2
Elongation at Yield	50mm/min	5	%	527-2
Elongation at break	50mm/min	15	%	527-2
Flexural strength	2mm/min 10N	175	MPa	178
Modulus of elasticity (flexural test)	2mm/min 10N	4200	MPa	178
Compression Strength	1%/2% 5mm/min 10N	23/43	MPa	604
Compression modulus	5mm/min 10N	3400	MPa	604
Impact strength (Charpy)	Max. 7,5J	N.B.	kJ/m <sup>2</sup>	179-1eU
Notched impact strength (Charpy)	Max. 7,5J	4	kJ/m <sup>2</sup>	179-1eA
Ball indentation hardness	-	253	MPa	2039-1

Thermal Properties	Parameter	Value	Unit	DIN/EN/ISO
Glass transition temperature	-	150	°C	53765
Melting temperature	-	341	°C	53765
Heat distortion temperature	HDT, Method A	162	°C	ISO-R 75 Method A
Service temperature	Short term	300	°C	-
Service temperature	Long term	260	°C	-
Thermal expansion (CLTE)	23-60°C, Long	5	10 <sup>-5</sup> K <sup>-1</sup>	11359-1;2
Thermal expansion (CLTE)	23-100°C, Long	5	10 <sup>-5</sup> K <sup>-1</sup>	11359-1;2
Thermal expansion (CLTE)	100-150°C, Long	7	10 <sup>-5</sup> K <sup>-1</sup>	11359-1;2
Specific heat	-	1.1	J/(g*K)	22007-4:2008
Thermal conductivity	-	0.27	W/(K*m)	22007-4:2008

Electrical properties	Parameter	Value	Unit	DIN/IEC
Surface resistance	-	10 <sup>14</sup>	Ω	60093

Other properties	Parameter	Value	Unit	DIN/EN/ISO/IEC
Water absorption	24h/96h (23°C)	0.02/0.03	%	62
Resistance to hot water/bases	-	+	-	-
Resistance to weathering	-	-	-	-
Flammability (UL94)	Listed (value @ 1,5mm)	V0	-	60695-11-10
FDA Approved	-	Yes	-	-

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The following information corresponds with our current knowledge and indicates our products and possible applications. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. Existing commercial patents must be observed. A definitive quality guarantee is given in our general conditions of sales. Unless otherwise stated, these values represent averages taken from injection moulding samples. We reserve the right of technical alterations.