

**PEEK Properties Data Sheet**

Technical Data	Method of Verification	Unit	PEEK
<b>I .Physical Properties</b>			
Density	ISO 1183	g/cm3	1.3
Water absorption	ISO 62	%	0.1
<b>II .Mechanical Properties</b>			
Tensile strength at yield	ISO 527-2	MPa	97
Tensile strength at break	ISO 527-2	Mpa	-
Elongation at break	ISO 527-2	%	25
Modulus of elasticity after tensile test	ISO 527-2	MPa	-
Modulus of elasticity after flexural test	ISO 178	MPa	4,200
Hardness-Rockwell	ISO 2039-2		-
Hardness - Shore D	DIN 53505		88
Charpy impact strength at 23℃	ISO 179	kJ/m2	N.B.
Friction coefficient	DIN 53375		0.34
<b>III .Thermal Properties</b>			
Heat deflection temperature - HDT/A	ISO 75-2	℃	152
Max. service temperature - Short term		℃	300
Max. service temperature - Long term		℃	260
Thermal conductivity at 23 ℃	DIN 11359	W/(K*m)	0.25
Coefficient of linear thermal expansion	ISO 11359	10 <sup>-4</sup> K <sup>-1</sup>	0.47
<b>IV .Electrical Properties</b>			
Dielectric constant at 1 MHz	IEC 60250	10 <sup>6</sup> Hz	3.20
Dielectric loss factor at 1 MHz	IEC 60250	10 <sup>6</sup> Hz	0.003
Volume resistivity	IEC 60093	Ohm (Ω) * cm	≥10 <sup>16</sup>
Surface resistivity	IEC 60093	Ohm (Ω)	≥10 <sup>15</sup>
Dielectric strength	IEC 60243-1	kV/mm	19
<b>V .Miscellaneous Data</b>			
Flammability	UL 94	Class	V-0
<b>NOTE: 1 g/cm3 = 1,000 kg/m3, 1 Mpa = 1 N/mm2, 1kV/mm = 1 MV/m</b>			

**Statement:**

NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. ENERGETIC will not provide any legally binding guarantee of certain properties, or any suitability.