

PEEK Rod Extruded Technical Sheet

Natural



	Test	Unit	Value
Density	ISO 1183	g/cm ³	1.31
Moisture pick-up till saturation (in normal climate 23 °C)	ISO 62	%	0.2
Water absorption till saturation (in water at 23 °C)	ISO 62	%	0.45
Tensile stress at yield / tensile stress at break (10)	ISO 527-1 / - 2	MPa	115 / -
Tensile Strength	ISO 527-1 / - 2	MPa	115
Tensile stress at yield (v = 50 mm/min)	ISO 527-1 / - 2	%	5
Tensile stress at break (v = 5 mm/min)	ISO 527-1 / - 2	%	17
Tensile modulus of elasticity	ISO 527-1 / - 2	MPa	4300
Flexural modulus of elasticity	ISO 178	N/mm ²	2500
Ball indentation hardness	ISO 2039-1	N/mm ²	210
Rockwell hardness	ISO 2039-2	-	M 105
Charpy impact strength unnotched	ISO 179/1eU	kJ/m ²	No Break
Charpy impact strength - notched	ISO 179/1eA	kJ/m ²	3.5
Temperature of deflection under method A: 1.8 MPa	ISO 75-1/-2	°C	160
Temperature for using in air (maximum)	Long period	°C	310
Temperature for using in air (minimum)	Short Period	°C	-50
Heat distortion temperature (HDT A process)	ISO 75-2	°C	96
Coefficient of linear expansion, at length (23-100)°C:		M/(K·m)	50 x 10 ⁻⁵
Coefficient of linear expansion, at length (23-150)°C:		M/(K·m)	55 x 10 ⁻⁵
Coefficient of linear expansion, at length (150>)°C:		M/(K·m)	130 x 10 ⁻⁵
Thermal conductivity (23 °C)	DIN 52612	W/(K·m)	0.25
Flammability according UL standard	UL 94	Grade	V - 0 / V - 0
Vicat softening temperature (VST/B/50)	ISO 306	°C	150

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Melting point DSC (°10 C/min) – (3)	ISO 11357-1/-3	°C	340
Glass transition temperature (DSC,20 °C/min)-(3)	ISO 11357-1/-2	°C	-
Min service temperature		°C	-
Flammability Oxygen Index	ISO 4589-1/-2	%	35
Electrical strength	IEC 60243-2	kV/mm	24
Specific volume resistivity	IEC 60093	Ω·cm	>10 ¹⁴
Specific surface resistivity	ANSI/ESD STM 11.	Ω.sq	>10 ¹³
Dielectric factor (at 1 MHz)*	IEC 60250	-	0.002
Dielectric factor (at 100 Hz)*	IEC 60250	-	0.001
Relative permittivity (at 1 MHz)*	IEC 60250	-	3.2
Relative permittivity (at 100 Hz)*	IEC 60250	-	3.2
Comparative tracking index (CTI)	IEC 60112		150
Comparative tracking index (CTI)	IEC 60112	-	600

All The above information is for guide purposes only. The data has been taken from standard test results provided by manufactures.