



KETRON 1000 PEEK

Properties	Test Methods	Units	Values
Density	ISO 1183-1	g/cm ³	1.31
Water absorption:			
- after 24/96 hrs immersion in water of 23°C	ISO 62	mg	5 / 10
	ISO 62	%	0.06 / 0.12
- at saturation in air of 23°C / 50% RH	-	%	0.20
- at saturation in water of 23°C	-	%	0.45
Thermal Properties			
Melting temperature (DSC, 10°C/min)	ISO 11357-1/-3	°C	340
Glass transition Temperature (DSC, 20°C.min)	ISO 11357-1/-2	°C	-
Thermal conductivity at 23°C	-	W/(m.K)	0.25
Coefficient of linear thermal expansion:			
- average value between 23°C and 100°C	-	m/(m.K)	50 x 10 ⁻⁶
- average value between 100°C and 150°C	-	m/(m.K)	55 x 10 ⁻⁶
- average value above 150°C	-	m/(m.K)	130 x 10 ⁻⁶
Temperature of deflection under load:			
- method A: 1.8 Mpa	ISO 75-1/-2	°C	160
Max. allowable service temperature in air:			
- for short periods	-	°C	310
- continuously; for min. 20,000 hrs	-	°C	250
Min. service temperature	-	°C	-50
Flammability:			
- "Oxygen Index"	ISO 4589-1/-2	%	35
- according to UL 94 (3 / 6mm thickness)	-	-	V-0 / V-0
Mechanical Properties at 23°C			
Tension test:			
- tensile stress at yield / tensile stress at break	ISO 527-1/-2	MPa	115 / -
- tensile strength	ISO 527-1/-3	MPa	115
- tensile strain at yield	ISO 527-1/-4	%	5
- tensile strain at break	ISO 527-1/-5	%	17
- tensile modulus of elasticity	ISO 527-1/-7	MPa	4300
Compression test			
- compressive stress at 1 / 2 / 5 % nominal strain	ISO 604	MPa	38 / 75 / 140
Charpy impact strength - Unnotched	ISO 179-1/1eU	kJ/m ²	no break
Charpy impact strength - Notched	ISO 179-1/1eA	kJ/m ²	3.5
Ball indentation hardness	ISO 2039-1	N/mm ²	210
Rockwell hardness	ISO 2039-2	-	M105
Electrical Properties at 23°C			
Electric strength	IEC 60243-1	kV/mm	20
Volume resistivity	IEC 60093	Ohm.cm	>10 ¹⁴
Surface resistivity	ANSI/ESD STM 11.11	Ohm/sq.	>10 ¹⁵
Relative permittivity ϵ_r : - at 100 Hz	IEC 60250	-	3.2
Relative permittivity ϵ_r : - at 1 MHz	IEC 60250	-	3.2
Dielectric dissipation factor $\tan \delta$: - at 100 Hz	IEC 60250	-	0.001
Dielectric dissipation factor $\tan \delta$: - at 1 MHz	IEC 60250	-	0.002
Comparative tracking index (CTI)	IEC 60112	-	150

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