

Product Information					
Polyether ether ketone(PEEK)					
Typical values for uncolored product at 23°C	Test method	Conditions	Unit	Typical values	
				770G	550G
Mechanical Properties					
Tensile Strength	ISO 527	Yield, 23°C	MPa	100	100
Tensile Elongation	ISO 527	Break, 23°C	%	45	40
Flexural Strength	ISO 178	Yield, 23°C	MPa	165	170
Flexural Modulus	ISO 178	23°C	GPa	4.1	4.2
Compressive Strength	ISO 604	23°C	MPa	125	125
Charpy Impact Strength	ISO 179/1eA	Notched	kJ m^{-2}	7	6
	ISO 179/1U	Unnotched	kJ m^{-2}	—	—
Izod Impact Strength	ISO 180/A	Notched	kJ m^{-2}	7.5	6.5
	ISO 180/U	Unnotched	kJ m^{-2}	—	—
Mould Shrinkage	ISO 294-4	Along Flow	%	1	1
		Across Flow	%	1.3	1.3
Thermal Properties					
Melting Point	ISO 11357	—	°C	343	343
Glass Transition Temperature (Tg)	ISO 11357	Onset	°C	143	143
Special Heat Capacity	DSC	23°C	$\text{kJ kg}^{-1} \text{°C}^{-1}$	2.2	2.2
Coefficient of Thermal Expansion	ISO 11359	Along flow below Tg	ppm K^{-1}	45	45
		Along flow above Tg	ppm K^{-1}	120	120
Heat Deflection Temperature (HDT)	ISO 75	1.8 Mpa	°C	152	152
Thermal Conductivity	ISO 22007-4	23°C	$\text{W m}^{-1} \text{K}^{-1}$	0.29	0.29
Flow					
Melt Index	ISO 1133	380°C,5kg	g 10min^{-1}	10	20
Electrical Properties					
Dielectric Strength	IEC 60243-1	2mm	kV mm^{-1}	23	23
Comparative Tracking	IEC 60112	—	V	150	150
Dielectric Constant	IEC 60250	23°C, 1kHz	—	3.1	3.2
		23°C, 50Hz	—	3	4.5
Loss Tangent	IEC 60250	23°C, 1MHz	—	0.004	0.003
Volume Resistivity	IEC 60093	23°C, 1V	$\Omega \text{ cm}$	10^{16*}	10^{16*}
		275°C	$\Omega \text{ cm}$	10^{9*}	10^{9*}
General Properties and Processability					
Density	ISO 1183	Crystalline	g cm^{-3}	1.3	1.3
		Amorphous	g cm^{-3}	1.26	1.26
Shore D Hardness	ISO 868	23°C		85	85
Water Absorption (3.2mm thick Tensile Bar) (by immersion)	ISO 62	24h, 23°C	%	0.07	0.07
		Equilibrium, 23°C	%	0.4	0.4

