

# PEEK iPEEK® i770G

Test Item	Test Method	Conditions	Units	Test Data
<b>Mechanical Data</b>				
Tensile Strength	ISO 527	Yield, 23°C	MPa	100
Tensile Elongation	ISO 527	Break, 23°C	%	45
Flexural Strength	ISO 178	Yield, 23°C	MPa	165
Flexural Modulus	ISO 178	23°C	GPa	4.1
Compressive Strength	ISO 604	23°C	MPa	125
Charpy Impact Strength	ISO 179/1eA	Notched	$\text{kJ m}^{-2}$	7
	ISO 179/1U	Unnotched	$\text{kJ m}^{-2}$	-
Izod Impact Strength	ISO 180/A	Notched	$\text{kJ m}^{-2}$	7.5
	ISO 180/U	Unnotched	$\text{kJ m}^{-2}$	-
Mould Shrinkage	ISO 294-4	Along Flow	%	1
		Across Flow	%	1.3
<b>Thermal Data</b>				
Melting Point	ISO 11357	-	°C	343
Glass Transition (Tg)	ISO 11357	Onset	°C	143
Special Heat Capacity	DSC	23°C	$\text{kJ kg}^{-1} \text{°C}^{-1}$	2.2
Coefficient of Thermal Expansion	ISO 11359	Along flow below Tg	$\text{ppm K}^{-1}$	45
		Along flow above Tg	$\text{ppm K}^{-1}$	120
Heat Deflection Temperature	ISO 75	1.8 Mpa	°C	152
Thermal Conductivity	ISO 22007-4	23°C	$\text{W m}^{-1} \text{K}^{-1}$	0.29
<b>Flow</b>				
Melt Index	ISO 1133	380°C, 5kg	$\text{g 10min}^{-1}$	10
<b>Miscellaneous</b>				
Density	ISO 1183	Crystalline	$\text{g cm}^{-3}$	1.3
		Amorphous	$\text{g cm}^{-3}$	1.26
Shore D Hardness	ISO 868	23°C		85
Water Absorption (3.2mm thick Tensile Bar) (by immersion)	ISO 62	24h, 23°C	%	0.07
		Equilibrium, 23°C	%	0.4

## Electrical Data

Dielectric Strength	IEC 60243-1	2mm	kV mm <sup>-1</sup>	23
Comparative Tracking Index	IEC 60112	-	V	150
Dielectric Constant	IEC 60250	23°C, 1kHz	-	3.1
		23°C, 50Hz	-	3
Loss Tangent	IEC 60250	23°C, 1MHz	-	0.004
Volume Resistivity	IEC 60093	23°C, 1V	Ω cm	10 <sup>16</sup>
		275°C	Ω cm	10 <sup>9</sup>

\*Result based on similar products