

PEEK iPEEK® i550CA30

Test Item	Test Method	Conditions	Units	Test Data
Mechanical Data				
Tensile Strength	ISO 527	Break, 23℃	MPa	250
Tensile Elongation	ISO 527	Break, 23℃	%	1.6
Flexural Strength	ISO 178	Break, 23℃	MPa	370
Flexural Modulus	ISO 178	23℃	GPa	22
Compressive Strength	ISO 604	23℃	MPa	300
Charpy Impact Strength	ISO 179/1eA	Notched	kJ m ⁻²	7
	ISO 179/1U	Unnotched	kJ m ⁻²	45
Izod Impact Strength	ISO 180/A	Notched	kJ m ⁻²	9
	ISO 180/U	Unnotched	kJ m ⁻²	45
Mould Shrinkage	ISO 294-4	Along Flow	%	0.1
		Across Flow	%	0.5
Thermal Data				
Melting Point	ISO 11357	-	℃	343
Glass Transition (Tg)	ISO 11357	Onset	℃	143
Special Heat Capacity	DSC	23℃	kJ kg ⁻¹ ℃ ⁻¹	1.8
Coefficient of Thermal Expansion	ISO 11359	Along flow below Tg	ppm K ⁻¹	5
		Along flow above Tg	ppm K ⁻¹	6
Heat Deflection Temperature	ISO 75	1.8 Mpa	℃	336
Thermal Conductivity	ISO 22007-4	23℃	W m ⁻¹ K ⁻¹	0.95
Flow				
Melt Index	ISO 1133	380℃,5kg	g 10min ⁻¹	5
Miscellaneous				
Density	ISO 1183	Crystalline	g cm ⁻³	1.4
		Amorphous	g cm ⁻³	-
Shore D Hardness	ISO 868	23℃		88
Water Absorption (3.2mm thick Tensile Bar) (by immersion)	ISO 62	24h, 23℃	%	0.04
		Equilibrium, 23℃	%	0.3

Electrical Data

Dielectric Strength	IEC 60243-1	2mm	kV mm ⁻¹	-
Comparative Tracking Index	IEC 60112	-	V	-
Dielectric Constant	IEC 60250	23℃, 1kHz	-	-
		23℃, 50Hz	-	-
Loss Tangent	IEC 60250	23℃, 1MHz	-	-
Volume Resistivity	IEC 60093	23℃, 1V	Ω cm	10 ⁵
		275℃	Ω cm	-

*Result based on similar products