PRSPEEK-880GL30

PRSPEEK-880GL30 is Injection grade 30% short cut Glass fiber reinforced PEEK pellets:
High rigidity
High strength
High static load
Good High dimensional stability

Test Item	Test Method	Conditions	Units	Test Data
Mechanical Data				
Tensile Strength	ISO 527	Break, 23℃	MPa	175
Tensile Elongation	ISO 527	Break, 23℃	%	2.7
Flexural Strength	ISO 178	Break, 23℃	MPa	265
Flexural Modulus	ISO 178	23℃	GPa	11.3
Compressive Strength	ISO 604	23℃	MPa	250
Charpy Impact Strength	ISO 179/1eA	Notched	kJ m^{-2}	8
	ISO 179/1U	Unnotched	kJ m^{-2}	55
Izod Impact Strength	ISO 180/A	Notched	kJ m^{-2}	10
	ISO 180/U	Unnotched	kJ m^{-2}	60
Mould Shrinkage	ISO 294-4	Along Flow	%	0.3
	ISO 294-4	Across Flow	%	0.8
Thermal Data				
Melting Point	ISO 11357	-	℃	343
Glass Transition (Tg)	ISO 11357	Onset	℃	143
Special Heat Capacity	DSC	23℃	kJ kg^{-1} ℃-1	1.7
Coefficient of Thermal Expansion	ISO 11359	Along flow below Tg	ppm K^{-1}	18
	ISO 11359	Along flow above Tg	ppm K^{-1}	18
Heat Deflection Temperature	ISO 75	1.8 Mpa	℃	328
Thermal Conductivity	ISO 22007-4	23℃	W m^{-1} K-1	0.3
Flow				
Melt Index	ISO 1133	380℃,5kg	g $10min^{-1}$	6

Miscellaneous

Density	ISO 1183	Crystalline	g cm^{-3}	1.51
	ISO 1183	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
	ISO 62	Equilibrium, 23℃	%	0.3

Electrical Data

Dielectric Strength	IEC 60243-1	2mm	kV mm^{-1}	25
Comparative Tracking Index	IEC 60112	-	V	150
Dielectric Constant	IEC 60250	23℃, 1kHz	-	3.2
	IEC 60250	23℃,50Hz	-	-
Loss Tangent	IEC 60250	23℃, 1MHz	-	0.005
Volume Resistivity	IEC 60093	23℃,1V	Ω cm	10^{16}
	IEC 60093	275℃	Ω cm	-