Sciengy

PEEK-SGRN801G
Polyetheretherketone (PEEK)

TECHNICAL DATA SHEET

Description

Sciengy® PEEK-SGRN801G is a easy-flow type, unreinforced PolyEtherEtherKetone (PEEK), granules for injection moulding and extrusion.

Unfilled, Easy flow

Series	Unreinforced
ISO Designation	>Unfilled PEEK<
Process Method	Injection molding, Monofilament Extrusion

Properties

Physical	**Value**	**Units**	**Test Standard**
Density	1.30	g/cm³	ISO 1183
Mold Shrinkage (Machine Direction)	1.00	%	GB/T 15585
Mold Shrinkage (Transverse Direction)	1.20	%	GB/T 15585
Water Absorption (23°C-sat)	0.07	%	ISO 62
Mechanical	**Value**	**Units**	**Test Standard**
Tensile Stress at Break (5 mm/min)	105	MPa	ISO 527
Elongation at Break (23℃)	20	%	ISO 527
Flexural Modulus at Break (23℃)	4.1	GPa	ISO 178
Flexural Strength at Break	170	MPa	ISO178
Charpy Impact Strength @23℃ (V-notched)	5.0	kJ/m²	IS0 179
Thermal	**Value**	**Units**	**Test Standard**
Melting Temperature (10°C/min)	343	°C	ISO 11357
Heat Deflection Temp. High Load (1.8 MPa)	152	°C	ISO 75
Glass Transition (Tg)	150	°C	ISO 11357
Melt Flow Rate (380℃, 5kg)	85	g/10min	ISO 1133
Thermal expansion coefficient (T<Tg)	45.00	ppm/℃	ISO 11359
Thermal expansion coefficient (T>Tg)	120.00	ppm/℃	ISO 11359
Thermal conductivity (23℃)	0.29	W/mk	ISO 22007-4
Electrical Properties	**Value**	**Units**	**Test Standard**
Dielectric Strength (60*60*1mm³)	23	KV/mm	IEC 60243

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Relative Permittivity (100Hz&1MHz)	3.1	/	IEC 60250
Dissipation Factor (100Hz&1MHz)	0.004	/	IEC 60250
Volume Resistivity	10^15	Ω·cm	IEC 60093
Surface Resistivity	10^15	Ω	IEC 60093
Typical Processing Conditions	**Value**	**Units**	**Test Standard**
Drying Temp. / Time	150℃&4h	/	/
Injection Molding Melt Temp.	355~375	°C	/
Injection Molding Mold Temp.	175~205	°C	/