

PEEK-SGRN1001G

Polyetheretherketone (PEEK)

TECHNICAL DATA SHEET

Description

Sciengy® PEEK-SGRN1001G is a high-flow type, unreinforced PolyEtherEtherKetone (PEEK), granules for injection moulding.

Unfilled, Ultra-high flow

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

Properties

Physical	Value	Units	Test Standard
Density	1.30	g/cm ³	ISO 1183
Mold Shrinkage (Machine Direction)	0.90	%	GB/T 15585
Mold Shrinkage (Transverse Direction)	1.00	%	GB/T 15585
Water Absorption (23°C-sat)	0.5	%	ISO 62
Mechanical	Value	Units	Test Standard
Tensile Stress at Break (5 mm/min)	100	MPa	ISO 527
Elongation at Break (23°C)	10	%	ISO 527
Flexural Modulus at Break (23°C)	3.8	GPa	ISO 178
Flexural Strength at Break	165	MPa	ISO178
Charpy Impact Strength @23°C (V-notched)	5.0	kJ/m ²	ISO 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°C, 5kg)	148	g/10min	ISO 1133
Thermal conductivity (23°C)	0.29	W/mk	ISO 22007-4
Electrical Properties	Value	Units	Test Standard
Dielectric Strength (60*60*1mm ³)	23	KV/mm	IEC 60243
Relative Permittivity (100Hz&1MHz)	3.1	/	IEC 60250
Dissipation Factor (100Hz&1MHz)	0.004	/	IEC 60250

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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°C&4h	/	/
Injection Molding Melt Temp.	355~375	°C	/
Injection Molding Mold Temp.	175~205	°C	/