

PEEK-SGRN201G

Polyetheretherketone (PEEK)

TECHNICAL DATA SHEET

Description

Sciengy® PEEK-SGRN201G is a medium viscosity type, standard flow, unreinforced PolyEtherEtherKetone (PEEK), granules for injection molding and extrusion.

Unfilled, Standard

Series

Unreinforced

ISO Designation

>Unfilled PEEK<

Process Method

Injection molding, Film Extrusion

Properties

Physical	Value	Units	Test Standard
Density	1.30	g/cm ³	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)	98	MPa	ISO 527
Elongation at Break (23°C)	25	%	ISO 527
Flexural Modulus at Break (23°C)	3.9	GPa	ISO 178
Flexural Strength at Break	165	MPa	ISO178
Charpy Impact Strength @23°C (V-notched)	7.0	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 (T _g)	150	°C	ISO 11357
Melt Flow Rate (380°C, 5kg)	25	g/10min	ISO 1133
Thermal expansion coefficient (T<T _g)	60	ppm/°C	ISO 11359
Thermal expansion coefficient (T>T _g)	140	ppm/°C	ISO 11359
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

PEEK-SGRN201G
Polyetheretherketone (PEEK)

TECHNICAL DATA SHEET

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