

PEEK-SG101CNT

Polyetheretherketone (PEEK)

TECHNICAL DATA SHEET

Description

Sciengy® PEEK-SG101CNT is PEEK filled with carbon nanotubes specially formulated to have antistatic properties up to high temperatures, which is suitable for injection molding.

Filled with CNT, Antistatic

Series	Special Functional
ISO Designation	>PEEK-CNT<
Process Method	Injection molding

Properties

Physical	Value	Units	Test Standard
Density	1.32	g/cm ³	ISO 1183
Mold Shrinkage (Machine Direction)	1.30	%	GB/T 15585
Mold Shrinkage (Transverse Direction)	1.70	%	GB/T 15585
Water Absorption (23°C-sat)	0.40	%	ISO 62
Flammability(1.6 mm)	V-0		IEC60695
Mechanical	Value	Units	Test Standard
Tensile Stress at Break (5 mm/min)	75	MPa	ISO 527
Elongation at Break (23°C)	2.8	%	ISO 527
Flexural Modulus at Break (23°C)	5.0	GPa	ISO 178
Flexural Strength at Break	120	MPa	ISO178
Charpy Impact Strength @23°C (V-notched)	6.0	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)	150	°C	ISO 75
Glass Transition (Tg)	150	°C	ISO 11357
Thermal expansion coefficient (T<Tg) along flow	40	ppm/°C	ISO 11359
Thermal expansion coefficient (T>Tg) along flow	110	ppm/°C	ISO 11359
Thermal expansion coefficient (T<Tg) across flow	50	ppm/°C	ISO 11359

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Thermal expansion coefficient (T>Tg) across flow	130	ppm/°C	ISO 11359
Electrical Properties	Value	Units	Test Standard
Typical Processing Conditions	Value	Units	Test Standard
Drying Temp. / Time	150°C&3h or 120°C&5h(residual moisture<0.02%)		
Injection Molding Melt Temp.	170°C~200°C		
Temperature Settings	365/370/375/385/385°C(Nozzle)		
Hopper Temperature	Not greater than 100°C		
Gate	>2mm or 0.5*part thickness		