

VICTREX® PEEK 90GL30 BLACK EU

Polyetheretherketone

Victrex plc

Message:

High performance thermoplastic material, 30% glass fibre reinforced PolyEtherEtherKetone (PEEK), semi crystalline, granules for injection moulding, very easy flow, FDA food contact compliant, colour black.

Complex geometries with thinner cross sections or longer flow lengths where higher strength in a static system is required. Low coefficient of thermal expansion. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Semicrystallization		
	Low CLTE		
	High strength		
	Good disinfection		
	Good liquidity		
	Good chemical resistance		
	Compliance of Food Exposure		
Uses	Non-specific food applications		
	Medical/nursing supplies		
Agency Ratings	FDA Food Exposure, Not Rated		
Appearance	Black		
Forms	Particles		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density ¹	1.52	g/cm³	ISO 1183
Spiral Flow ²			Internal method
-- ³	18.5	cm	Internal method
-- ⁴	22.0	cm	Internal method
Molding Shrinkage ⁵			ISO 294-4
Transverse flow	0.90	%	ISO 294-4
Flow	0.30	%	ISO 294-4
Water Absorption (Saturation, 23°C)	0.30	%	ISO 62
Water absorption rate-Saturation (100°C)	0.450	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 23°C)	87		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	12000	MPa	ISO 527-2
Tensile Stress			ISO 527-2

Fracture, 23°C	180	MPa	ISO 527-2
Fracture, 125°C	120	MPa	ISO 527-2
Fracture, 175°C	70.0	MPa	ISO 527-2
Fracture, 225°C	60.0	MPa	ISO 527-2
Fracture, 275°C	40.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.2	%	ISO 527-2
Flexural Modulus (23°C)	11500	MPa	ISO 178
Flexural Stress			ISO 178
23°C	275	MPa	ISO 178
125°C	230	MPa	ISO 178
175°C	115	MPa	ISO 178
275°C	75.0	MPa	ISO 178
Compressive Stress			ISO 604
23°C	250	MPa	ISO 604
120°C	160	MPa	ISO 604
250°C	55.0	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	8.0	kJ/m ²	ISO 180/A
Unnotched Izod Impact Strength (23°C)	40	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	335	°C	ISO 75-2/Af
Glass Transition Temperature ⁶	143	°C	ISO 11357
Melting Temperature	343	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: < 143°C	2.0E-5	cm/cm/°C	ISO 11359-2
Flow: > 143°C	2.0E-5	cm/cm/°C	ISO 11359-2
Lateral: < 143°C	4.5E-5	cm/cm/°C	ISO 11359-2
Lateral: > 143°C	1.1E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity			ISO 22007-4
23°C ⁷	0.30	W/m/K	ISO 22007-4
23°C ⁸	0.35	W/m/K	ISO 22007-4
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms · cm	IEC 60093
Dielectric Strength (2.00 mm)	22	kV/mm	IEC 60243-1
Comparative Tracking Index	150	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index (2.0 mm)	960	°C	IEC 60695-2-12
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C)	200	Pa · s	ISO 11443
Injection	Nominal Value	Unit	
Drying Temperature	120 - 150	°C	

Drying Time	3.0 - 5.0	hr
Hopper Temperature	< 100	°C
Rear Temperature	355	°C
Middle Temperature	360	°C
Front Temperature	365	°C
Nozzle Temperature	370	°C
Mold Temperature	170 - 200	°C

Injection instructions

Runner: Die / nozzle >3mm, manifold >3.5mmGate: >2mm or 0.5 x part thickness

NOTE

1. Crystalline
2. 1 mm
3. Mold temperature: 180°C, melt temperature: 370°C
4. Mold temperature: 200°C, melt temperature: 400°C
5. 370°C nozzle, 180°C tool
6. Onset
7. Average
8. Along flow

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT