

VICTREX® PEEK 450GL30

Polyetheretherketone

Victrex plc

Message:

High performance thermoplastic material, 30% glass fibre reinforced PolyEtherEtherKetone (PEEK), semi crystalline, granules for injection moulding and extrusion, standard flow, FDA food contact compliant, colour natural/beige.
Applications for higher strength in a static system. Low coefficient of thermal expansion. Chemically resistant to aggressive environments, suitable for sterilisation for medical and food contact applications.

General Information			
UL YellowCard	E161131-224307		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	Semicrystallization		
	Low friction coefficient		
	High strength		
	Good disinfection		
	Good chemical resistance		
	Compliance of Food Exposure		
Uses	Non-specific food applications		
	Medical/nursing supplies		
Agency Ratings	FDA Food Exposure, Not Rated		
	MIL P-46183		
Appearance	Beige		
	Natural color		
Forms	Particles		
Processing Method	Extrusion		
	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.51	g/cm ³	ISO 1183
Spiral Flow ¹			Internal method
-- ²	8.50	cm	Internal method
-- ³	41.0	cm	Internal method
Molding Shrinkage			
Vertical flow direction: 190°C ⁴	0.90	%	
Flow direction: 190°C ⁵	0.30	%	ISO 294-4
Water Absorption			ISO 62

23°C, 24 hr, 3.20 mm	0.040	%	ISO 62
Balance, 23°C, 3.20mm, 50% RH	0.30	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, 23°C)	88		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	11800	MPa	ISO 527-2
Tensile Stress			ISO 527-2
Fracture, 23°C	180	MPa	ISO 527-2
Fracture, 125°C	115	MPa	ISO 527-2
Fracture, 175°C	60.0	MPa	ISO 527-2
Fracture, 275°C	35.0	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.7	%	ISO 527-2
Flexural Modulus (23°C)	11300	MPa	ISO 178
Flexural Stress			ISO 178
23°C	270	MPa	ISO 178
125°C	190	MPa	ISO 178
175°C	80.0	MPa	ISO 178
275°C	50.0	MPa	ISO 178
Compressive Stress			ISO 604
23°C	250	MPa	ISO 604
120°C	160	MPa	ISO 604
200°C	55.0	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	55	kJ/m ²	ISO 179/1U
Notched Izod Impact (23°C)	10	kJ/m ²	ISO 180/A
Unnotched Izod Impact Strength (23°C)	60	kJ/m ²	ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	328	°C	ISO 75-2/A
Glass Transition Temperature	143	°C	ISO 11357-2
Melting Temperature	343	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: > 143°C	1.8E-5	cm/cm/°C	ISO 11359-2
Flow: < 143°C	1.8E-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
Specific Heat (23°C)	1700	J/kg/°C	DSC
Thermal Conductivity (23°C)	0.30	W/m/K	ISO 22007-4
RTI Elec	240	°C	UL 746
RTI Imp	220	°C	UL 746
RTI	240	°C	UL 746

Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	IEC 60093
Dielectric Strength (2.00 mm)	25	kV/mm	IEC 60243-1
Dielectric Constant (23°C, 2 MHz)	3.20		IEC 60250
Dissipation Factor (23°C, 1 MHz)	5.0E-3		IEC 60250
Comparative Tracking Index	150	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C)	560	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	365	°C	
Middle Temperature	370 - 375	°C	
Front Temperature	380	°C	
Nozzle Temperature	385	°C	
Mold Temperature	180 - 200	°C	
Injection instructions			
Runner: Die / nozzle >3mm, manifold >3.5mmGate: >2mm or 0.5 x part thickness			
NOTE			
1.	Mold temperature: 190°C, melt temperature: 385°C		
2.	1 mm		
3.	3 mm		
4.	385°C nozzle,		
5.	385°C nozzle		

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