

Victrex® PEEK 650GL30 30% Glass Fiber Filled, PolyEtherEtherKetone

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK) , Polyetheretherketone, PEEK, Glass Fiber Filled

Material Notes:

High performance thermoplastic material, 30% glass fiber reinforced PolyEtherEtherKetone (PEEK), semi crystalline, granules for injection molding and extrusion, low flow, color natural/beige. Typical Application Areas: Applications for higher strength in a static system. Low coefficient of thermal expansion. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications. Information Provided by VICTREX®

Order this product through the following link:

http://www.lookpolymers.com/polymer_Victrex-PEEK-650GL30-30-Glass-Fiber-Filled-PolyEtherEtherKetone.php

Physical Properties	Metric	English	Comments
Density	1.51 g/cc	0.0546 lb/in ³	Crystalline; ISO 1183
Water Absorption at Saturation	0.30 %	0.30 %	immersion; ISO 62-1
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.45 %	0.45 %	immersion; ISO 62-1
	@Temperature 100 °C	@Temperature 212 °F	
Viscosity	700000 cP	700000 cP	melt; ISO 11443
	@Temperature 420 °C	@Temperature 788 °F	
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	405°C nozzle, 190°C tool; ISO 294-4
Linear Mold Shrinkage, Transverse	0.0080 cm/cm	0.0080 in/in	405°C nozzle, 190°C tool; ISO 294-4
Spiral Flow	9.00 cm	3.54 in	405°C nozzle, 190°C tool
	@Thickness 1.00 mm	@Thickness 0.0394 in	
	45.0 cm	17.7 in	405°C nozzle, 190°C tool
	@Thickness 3.00 mm	@Thickness 0.118 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	30.0 MPa	4350 psi	ISO 527
	@Temperature 275 °C	@Temperature 527 °F	
	50.0 MPa	7250 psi	ISO 527
	@Temperature 175 °C	@Temperature 347 °F	
	95.0 MPa	13800 psi	ISO 527
	@Temperature 125 °C	@Temperature 257 °F	
	170 MPa	24700 psi	

Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 527 Comments
Elongation at Break	2.9 %	2.9 %	ISO 527
Tensile Modulus	11.5 GPa	1670 ksi	ISO 527
Flexural Strength	45.0 MPa	6530 psi	ISO 178
	@Temperature 275 °C	@Temperature 527 °F	
	75.0 MPa	10900 psi	ISO 178
Flexural Modulus	@Temperature 175 °C	@Temperature 347 °F	ISO 178
	170 MPa	24700 psi	
	@Temperature 125 °C	@Temperature 257 °F	
Compressive Strength	260 MPa	37700 psi	ISO 178
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	10.0 GPa	1450 ksi	ISO 178
Izod Impact, Notched (ISO)	35.0 MPa	5080 psi	ISO 604
	@Temperature 200 °C	@Temperature 392 °F	
	120 MPa	17400 psi	ISO 604
Charpy Impact Unnotched	@Temperature 120 °C	@Temperature 248 °F	ISO 604
	190 MPa	27600 psi	
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Izod Impact, Unnotched (ISO)	12.0 kJ/m ²	5.71 ft-lb/in ²	ISO 180/A
Charpy Impact, Notched	65.0 kJ/m ²	30.9 ft-lb/in ²	ISO 180/U
Charpy Impact, Notched	7.00 J/cm ²	33.3 ft-lb/in ²	ISO 179/1U
Charpy Impact, Notched	1.20 J/cm ²	5.71 ft-lb/in ²	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear	45.0 μm/m-°C	25.0 μin/in-°F	Average below Tg; ASTM D696
	@Temperature <=143 °C	@Temperature <=289 °F	
	120 μm/m-°C	66.7 μin/in-°F	Average above Tg; ASTM D696
	@Temperature >=143 °C	@Temperature >=289 °F	
	18.0 μm/m-°C	10.0 μin/in-°F	

CTE, linear, Parallel to Flow Thermal Properties	@Temperature <=143 Metric	@Temperature <=289 English	Below Tg; ASTM D696 Comments
	22.0 $\mu\text{m}/\text{m}\cdot\text{°C}$	12.2 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature >=143 °C	@Temperature >=289 °F	Above Tg; ASTM D696
Thermal Conductivity	0.300 W/m-K	2.08 BTU-in/hr-ft ² -°F	Average; ISO 22007-4
	0.350 W/m-K	2.43 BTU-in/hr-ft ² -°F	Along flow; ISO 22007-4
Melting Point	343 °C	649 °F	ISO 11357
Deflection Temperature at 1.8 MPa (264 psi)	320 °C	608 °F	ISO 75A-f
Glass Transition Temp, Tg	>= 143 °C	>= 289 °F	Onset; ISO 11357
	150 °C	302 °F	Midpoint; ISO 11357

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Dielectric Constant	3.5	3.5	IEC 60250
	@Frequency 1000 Hz	@Frequency 1000 Hz	
Dielectric Strength	20.0 kV/mm	508 kV/in	IEC 60243-1
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Dielectric Loss Index	0.0040	0.0040	IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	150 V	150 V	IEC 60112

Processing Properties	Metric	English	Comments
Processing Temperature	<= 100 °C	<= 212 °F	Hopper Temperature
Nozzle Temperature	405 °C	761 °F	
Mold Temperature	180 - 200 °C	356 - 392 °F	
Dry Time	3.00 hour	3.00 hour	
	@Temperature 150 °C	@Temperature 302 °F	
	5.00 hour	5.00 hour	
	@Temperature 120 °C	@Temperature 248 °F	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China