

VICTREX® PEEK 150G903 Black

Polyetheretherketone

Victrex plc

Message:

Product Description:

High performance thermoplastic material, unreinforced PolyEtherEtherKetone (PEEK), semi crystalline, granules for injection moulding, easy flow, FDA food contact compliant, colour black.

Typical Application Areas:

Complex geometries with thin cross sections or long flow lengths, for high strength and stiffness as well as good ductility. Chemically resistant to aggressive environments, suitable for sterilization for medical and food contact applications.

General Information			
Features	Semicrystallization		
	Rigidity, high		
	High strength		
	Good disinfection		
	Good liquidity		
	Good chemical resistance		
	Compliance of Food Exposure		
	ductility		
Uses	Food service sector		
	Medical devices		
Agency Ratings	FDA Food Exposure, Not Rated		
Appearance	Black		
Forms	Powder		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density			ISO 1183
-- 1	1.26	g/cm³	ISO 1183
-- 2	1.30	g/cm³	ISO 1183
Spiral Flow	22.0	cm	
Molding Shrinkage 3			ISO 294-4
Vertical flow direction	1.3	%	ISO 294-4
Flow direction	1.0	%	ISO 294-4
Water Absorption			ISO 62
23°C, 24 hr, 3.20 mm	0.070	%	ISO 62
Saturated, 23°C	0.40	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (23°C)	85		ISO 868
Mechanical	Nominal Value	Unit	Test Method

Tensile Modulus (23°C)	3700	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	100	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	15	%	ISO 527-2
Flexural Modulus (23°C)	4300	MPa	ISO 178
Flexural Stress			ISO 178
3.5% strain, 23°C	125	MPa	ISO 178
23°C	170	MPa	ISO 178
125°C	80.0	MPa	ISO 178
175°C	17.0	MPa	ISO 178
275°C	12.0	MPa	ISO 178
Compressive Stress			ISO 604
23°C	130	MPa	ISO 604
120°C	80.0	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	4.5	kJ/m ²	ISO 180/A
Unnotched Izod Impact Strength (23°C)	No Break		ISO 180
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	156	°C	ISO 75-2/Af
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	5.0E-5	cm/cm/°C	ISO 11359-2
Flow: > 143°C	1.2E-4	cm/cm/°C	ISO 11359-2
Lateral: < 143°C	5.5E-5	cm/cm/°C	ISO 11359-2
Lateral: > 143°C	1.4E-4	cm/cm/°C	ISO 11359-2
Thermal Conductivity (23°C)	0.30	W/m/K	
Specific Heat Capacity (23°C)	2200	J/kg/°C	DSC
Toxicity			NES 713
-- ⁴	0.220		NES 713
-- ⁵	0.150		NES 713
-- ⁶	0.0740		NES 713
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity			IEC 60093
23°C	1.0E+16	ohms · cm	IEC 60093
125°C	1.0E+15	ohms · cm	IEC 60093
275°C	1.0E+9	ohms · cm	IEC 60093
Dielectric Strength (2.00 mm)	24	kV/mm	IEC 60243-1
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
Oxygen Index			ISO 4589-2

-- 7	24	%	ISO 4589-2
-- 8	35	%	ISO 4589-2
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity (400°C)	140	Pa·s	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	120 - 150	°C	
Drying Time	3.0 - 5.0	hr	
Hopper Temperature	< 100	°C	
Rear Temperature	360	°C	
Middle Temperature	355	°C	
Front Temperature	350	°C	
Nozzle Temperature	365	°C	
Mold Temperature	160 - 200	°C	
Injection instructions			
Runner: Die/nozzle >3mm, manifold >3.5mmGate: >1mm or .5 x part thickness			
NOTE			
1.	Amorphous		
2.	Crystalline		
3.	365°C nozzle, 160°C tool		
4.	Total gasses		
5.	CO2 content		
6.	CO content		
7.	.4 mm		
8.	3.2 mm		

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