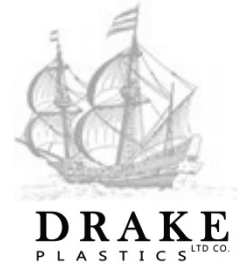




Product Datasheet

Victrex HT™

Unfilled PEK, Extruded Shapes



Material Notes:

VICTREX® HT™ polyetherketone (PEK) polymer is a unique high performance material for applications demanding higher temperature resistance than other ketone polymers.

HT offers twice the creep resistance of unfilled PEEK while supporting higher loads without permanent deformation. VICTREX HT polymer has three times the wear resistance and even better fatigue resistance than unfilled PEEK. Its higher tensile strength and higher flexural modulus are retained in temperatures 30°C (54°F) greater than standard PEEK. HT's exceptional resistance to chemicals, temperature and compressive strength make it suitable for:

- Seals and valve seats,
- Back-ups rings,
- Insulators, and electrical connectors.

Physical Properties	Metric	English	Methods
Specific Gravity	1.30 g/cc	0.0473 lb/in ³	ASTM D792
Water Absorption	0.1%	0.1 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.5 %	0.5 %	Immersion; ASTM D570(2)

Mechanical Properties*

Hardness, Rockwell M	100	100	ASTM D785
Hardness, Rockwell R	126	126	ASTM D785
Hardness, Shore D	85	85	ASTM D2240
Tensile Strength, Ultimate	114 MPa	16,500 psi	ASTM D638
Elongation at Break	40%	40 %	ASTM D638
Tensile Modulus	4,000 MPa	580,000 psi	ASTM D638
Flexural Modulus	4,140 MPa	600,000 psi	ASTM D790
Flexural Yield Strength	180 MPa	26,000 psi	ASTM D790
Compressive Strength	180 MPa	26,000 psi	10% Def.; ASTM D695
Compressive Modulus	4,000 MPa	580 ksi	ASTM D695
Izod Impact (notched)	52.5J/M	1.0 ft-lb/in	ASTM D256 Type A

Thermal Properties

Melt Point	373°C	703°F	ASTMD3418
Heat Deflection Temp (264 psi)	176°C	350°F	ASTM D638
Coefficient of Linear Thermal Exp. in/in/°F	4.0x10 ⁻⁵ C ⁻¹	2.2x10 ⁻⁵ F ⁻¹	ASTM E831

*The mechanical properties of extruded shapes may differ from the values published by resin producers. Published resin data is always generated off injection molded test specimens run under near perfect conditions. Drake's extruded shape values are generated using specimens machined from actual shapes and may reflect surface imperfections from machining, enhanced crystallinity resulting from processing and fiber alignment inherent in all reinforced plastic shapes, regardless of process. For additional information on the effects of fiber alignment see Drake Fiber Orientation Diagram available on the Resource page of our website.