Product Datasheet
Victrex 450 FC30

Bearing Grade PEEK, Extruded Shapes

Victrex 450FC30 PEEK is among the most recognized of the PEEK polymers developed for wear resistance. It offers the high strength and stiffness of reinforced PEEK a low coefficient of friction enabled through the addition of graphite and PTFE. It a limiting PV that is twice that of unfilled PEEK, 30% lower coefficient of friction and a wear rate that is only 25% that of unfilled PEEK. It performs well in both dry running and lubricated bearing applications and is FDA compliant. 450FC30 ideal for:

- Bushings and bearings
- High temperature wear pads
- Static dissipative components

Material Notes: 450FC30 is the equivalent to KT820SL30. Both are commonly referred to as 10 (%CF)-10(%graphite)-10(%PTFE) grades.

Physical Properties	**Metric**	**English**	**Methods**
Specific Gravity	1.45 g/cc	0.053 lb/in^3	ASTM D792
Water Absorption	0.05%	0.05 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	0.3 %	0.3 %	Immersion; ASTM D570(2)
Mechanical Properties*			
Hardness, Rockwell M	100	85	ASTM D785
Hardness, Rockwell R	125	115	ASTM D785
Hardness, Shore D	92	86	ASTM D2240
Tensile Strength, Ultimate	97 MPa	14,000 psi	ASTM D638
Elongation at Break	4%	4 %	ASTM D638
Tensile Modulus	5,862 MPa	850,000 psi	ASTM D638
Flexural Modulus	7,586 MPa	1,100,000 psi	ASTM D790
Flexural Yield Strength	172 MPa	25,000 psi	ASTM D790
Compressive Strength	138 MPa	20,000 psi	10% Def.; ASTM D695
Compressive Modulus	3,500 MPa	500,000 psi	ASTM D695
Izod Impact (notched)	36.8J/M	.7 ft-lb/in	ASTM D256 Type A
Thermal Properties			
Melt Point	340°C	644°F	ASTMD3418
Heat Deflection Temp (264 psi)	195°C	383°F	ASTM D638
Coefficient of Linear Thermal Exp. in/in/°F	4.8x10^{-5}C^{-1}	2.7x10^{-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.