

Ensinger Tecapeek® XP-98 Compression Molded PEEK Compound, 30% Carbon Fiber

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

Material Notes:

Ensinger Special Polymers offers over twenty different VICTREX® PEEK blends to choose from and has the capability to blend custom compounds for specific applications. Compression molding results in lower amounts of scrap, uniform physical properties and fewer molded-in stresses. TECAPEEK is a high-performance engineering thermoplastic. This semi-crystalline material has a balance of high temperature mechanical properties, chemical and steam resistance, superior wear properties and processability which makes it unique. Applications Include: Bearings and Bushings Down-hole instrumentation Wear Rings Ball Valve Seats Electrical Components Back-up and V-Rings Piston Rings and Rider Bands Information provided by Ensinger Special Polymers, Inc.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Ensinger-Tecapeek-XP-98-Compression-Molded-PEEK-Compound-30-Carbon-Fiber.php

Physical Properties	Metric	English	Comments
Density	1.43 g/cc	0.0517 lb/in ³	ASTM D792
Filler Content	30 %	30 %	
Water Absorption	0.050 % @Time 86400 sec	0.050 % @Time 24.0 hour	ASTM D570
Crystallinity	35 %	35 %	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	102	102	ASTM D785
Hardness, Shore D	93	93	ASTM D2240
Tensile Strength	126 MPa	18300 psi	ASTM D638
Elongation at Break	1.7 %	1.7 %	Flexural Strain; ASTM D790
	2.2 %	2.2 %	ASTM D638
Tensile Modulus	9.65 GPa	1400 ksi	ASTM D638
Flexural Strength	210 MPa	30500 psi	ASTM D790
Flexural Modulus	11.0 GPa	1600 ksi	ASTM D790
Compressive Strength	179 MPa	26000 psi	10% Deformation; ASTM D695
Compressive Modulus	4.14 GPa	600 ksi	ASTM D695
Shear Strength	83.4 MPa	12100 psi	ASTM D732

Impact Notched Mechanical Properties	0.550 J/cm Metric	1.03 ft-lb/in English	ASTM D256 Comments
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Thermal Properties	Metric	English	Comments
CTE, linear	28.4 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	15.8 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM E831
Melting Point	343 $^{\circ}\text{C}$	649 $^{\circ}\text{F}$	DSC
Heat Distortion Temperature	≥ 237 $^{\circ}\text{C}$	≥ 459 $^{\circ}\text{F}$	ASTM D648

Electrical Properties	Metric	English	Comments
Volume Resistivity	934 ohm-cm	934 ohm-cm	ANSI/ESD STM 11.12
Surface Resistance	≤ 10000 ohm	≤ 10000 ohm	ASTM D257

Descriptive Properties	Value	Comments
Color	Black	

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