TECAPEEK CM XP96 natural - Stock Shapes (rods, plates, tubes)

Chemical Designation
PEEK (Polyetheretherketone)

Colour
beige

Density
1.34 g/cm^3

Main features
- excellent strength
- broad chemical compatibility
- good dimensional stability
- high stiffness

Target Industries
- oil and gas industry
- chemical and refinery industry

Mechanical properties	condition	value	unit	test method	comment
Modulus of elasticity (tensile test)	@73°F	700,000	psi	ASTM D 638	
Tensile strength at break	@73°F	15,000	psi	ASTM D 638	
Elongation at yield (tensile test)		6.7	%	ASTM D 638	
Elongation at break (tensile test)	@73°F	10	%	ASTM D 638	
Flexural strength	@73°F	25,000	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@73°F	660,000	psi	ASTM D 790	
Compression strength	@73°F, 10% strain	19,300	psi	ASTM D 695	
Compression modulus	@73°F	360,000	psi	ASTM D 695	
Impact strength (Izod)	@73°F, notched	.58	ft-lbs/in	ASTM D 256	
Shore hardness	D Scale	88		ASTM D 2240	

Thermal properties	condition	value	unit	test method	comment
Melting temperature		649	°F	-	
Deflection temperature		300	°F	ASTM D 648	
Service temperature	Short Term	500	°F	-	
Thermal conductivity		1.7	BTU-in/hr-ft^2-°F	ASTM C 177	

Electrical properties	condition	value	unit	test method	comment
volume resistance		4.9*10^{16}	Ω*cm	ASTM D 257	
Dielectric strength		1900	kV/mm	ASTM D 149	

Other properties	condition	value	unit	test method	comment
Moisture absorption		0.05	%	ASTM D 570	

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