

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

Chemical Designation

PEEK (Polyetheretherketone)

Colour

beige

Density

1.34 g/cm³

Main features

excellent strength
broad chemical compatibility
good dimensional stability
high stiffness

Target Industries

oil and gas industry
chemical and refinery industry

Mechanical properties

<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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

<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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

<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Volume resistivity	4.9*10 ¹⁶	Ω*cm	ASTM D 257	
Dielectric strength	1900	kV/mm	ASTM D 149	

Other properties

<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Moisture absorption	0.05	%	ASTM D 570	

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