

TECAPEEK CM XP96 natural - Stock Shapes

Chemical Designation

PEEK (Polyetheretherketone)

Colour

beige

Density

1.36 g/cm³

Main features

- excellent chemical resistance
- hydrolysis and superheated steam resistant
- excellent mechanical properties
- easy to machine
- high continuous use temperature
- good dimensional stability
- good slide and wear properties

Target Industries

- oil and gas industry
- chemical plant engineering
- semiconductor technology
- food engineering
- food technology
- mechanical engineering

Mechanical properties	condition	value		test method	comment
Modulus of elasticity (tensile test)	@73°F	770,000	psi	ASTM D 638	
Tensile strength	@73°F	13,800	psi	ASTM D 638	
Elongation at break	@73°F	4.5	%	ASTM D 638	
Flexural strength	@73°F	22,300	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@73°F	700,000	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	
Rockwell hardness	M scale	101		ASTM D 785	

Thermal properties	condition	value		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		test method	comment
Volume resistivity		4.9*10 ¹⁶	Ω*cm	ASTM D 257	
Dielectric strength		1900	kV/mm	ASTM D 149	

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

→ Resin specification:
ASTM D4000-11 PEEK; MIL-P-46183 Ty. I
Shapes specification:
ASTM D6262-12 S-PAEK0111

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