

TECAPEEK CM CF30 black (XP98) - Stock Shapes (rods, plates, tubes)

Chemical Designation

PEEK (Polyetheretherketone)

Colour

black

Density

1.43 g/cm³

Fillers

30% carbon fibres

Main features

- very good chemical resistance
- good heat deflection temperature
- inherent flame resistance
- hydrolysis and superheated steam resistant
- very high stiffness
- very high creep resistant
- high dimensional stability
- resistance against high energy radiation

Target Industries

- aircraft and aerospace technology
- automotive industry
- conveyor technology
- oil and gas industry
- mechanical engineering
- chemical plant engineering

Mechanical properties	condition	value	test method	comment
Tensile strength	@73°F	19,000 psi	ASTM D 638	(1) ASTM D732
Modulus of elasticity (tensile test)	@73°F	1,840,000 psi	ASTM D 638	
Elongation at yield (tensile test)	@73°F	2.3 %	ASTM D 638	
Elongation at break (tensile test)	@73°F	2.5 %	ASTM D 638	
Flexural strength	@73°F	32,500 psi	ASTM D 790	
Modulus of elasticity (flexural test)	@73°F	1,600,000 psi	ASTM D 790	
Compression strength	@73°F, 10% strain	32,000 psi	ASTM D 695	
Compression strength	@ 1%	7,700 psi	ASTM D 695	
Compression modulus	@73°F	770,000 psi	ASTM D 695	
Impact strength (Izod)	@73°F, notched	1.00 ft-lbs/in	ASTM D 256	
Shore hardness	D scale	93	ASTM D 2240	
Shear strength	@73°F	13,000 psi	-	1)
Thermal properties	condition	value	test method	comment
Melting temperature		649 °F	-	(1) Obtained from public source
Service temperature	Short Term	572 °F	-	1) (2) Obtained from public source
Service temperature	Long Term	500 °F	-	2)
Thermal expansion (CLTE)		1.6*10 ⁻⁵ in/in/°F	-	
Other properties	condition	value	test method	comment
Moisture absorption	@ 24 hrs	0.05 %	ASTM D 570	

→ Resin specification:
ASTM D4000-11 PEEK0000C30G85300
Shapes specification:
ASTM D6262-12 S-PAEK0130

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