

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

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
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)
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Melting temperature		649	°F	-	(1) Obtained from public source
Service temperature	Short Term	572	°F	-	1)
Service temperature	Long Term	500	°F	-	2)
Thermal expansion (CLTE)		1.6*10 ⁻⁵	in/in/°F	-	(2) Obtained from public source
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Moisture absorption	@ 24 hrs	0.05	%	ASTM D 570	

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