

TECAPEEK CM XP99 black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PEEK (Polyetheretherketone)

Colour

black

Density

1.45 g/cm³

Fillers

carbon fibres, graphite, PTFE

Main features

hydrolysis and superheated steam resistant
 excellent strength
 excellent wear properties
 broad chemical compatibility
 good dimensional stability
 high stiffness

Target Industries

mechanical engineering
 oil and gas industry
 chemical and refinery industry

<i>Mechanical properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Tensile strength	@73°F	9,700	psi	ASTM D 790	(1) Units = Shore D
Elongation at break (tensile test)	@73°F	1.4	%	DIN EN ISO 527-1	
Flexural strength	@73°F	14,760	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@73°F	1,100,000	psi	ASTM D 790	
Compression strength	@ 73°F	21,200	psi	ASTM D 695	
Compression modulus	@ 73°F	500,000	psi	ASTM D 695	
Impact strength (Izod)	@73°F	0.60	ft-lbs/in	ASTM D 256	
Shore hardness	@ 73°F; Mscale	88	D	ASTM D 2240	1)
Shear strength	@ 73°F	10,300	psi	-	
<i>Thermal properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Glass transition temperature		289	°F	-	
Melting temperature		649	°F	-	
Heat distortion temperature		>455	°F	ASTM D 648	
<i>Other properties</i>	<i>parameter</i>	<i>value</i>	<i>unit</i>	<i>norm</i>	<i>comment</i>
Water absorption	@73 F, 24 hr	0.07	%	*** new ***	1) (1) 24 hr immersion

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