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

Chemical Designation
PEEK (Polyetheretherketone)

Colour
black

Density
1.45 g/cm^3

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

Mechanical properties	*condition*	*value*	*unit*	*test method*		*comment*
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	-		

Thermal properties	*condition*	*value*	*unit*	*test method*	*comment*
Glass transition temperature		289	°F	-	
Melting temperature		649	°F	-	
Heat distortion temperature		>455	°F	ASTM D 648	

Other properties	*condition*	*value*	*unit*	*test method*		*comment*
Water absorption	@73 F, 24 hr	0.07	%	*** new ***	1)	(1) 24 hr immersion

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