TECAPEEK ® ID blue - Stock Shapes (rods, plates, tubes)

Chemical Designation
PEEK (Polyetheretherketone)

Colour
blue grey

Density
1.44 g/cm^3

Fillers
detectable filler

Main features
- detectable via metal detector
- very good chemical resistance
- hydrolysis and superheated steam resistant
- good heat deflection temperature
- high creep resistance
- inherent flame resistance
- good machinability

Target Industries
- food processing
- food technology
- engineering for beverage filling systems
- packaging and paper machinery
- conveyor technology
- pharmaceutical industry
- mechanical engineering

Mechanical properties	condition	value	unit	test method		comment
Modulus of elasticity (tensile test)	(1mm/min)	624,000	psi	DIN EN ISO 527-2		(1) Data obtained from public source (2) Data obtained from public source (3) Data obtained from public source (4) Data obtained from public source
Tensile strength at yield	50 mm/min	14,500	psi	DIN EN ISO 527-2		
Tensile strength at break	50 mm/min	16,100	psi	DIN EN ISO 527-2	1)	
Elongation at yield (tensile test)	50 mm/min	4	%	DIN EN ISO 527-1	2)	
Elongation at break (tensile test)	@ 73 °F	4	%	DIN EN ISO 527-2		
Flexural strength	2 mm/min 10N	24,100	psi	DIN EN ISO 178	3)	
Modulus of elasticity (flexural test)		638,000	psi	ASTM D 790		
Compression modulus	5 mm/min 10N	696,000	psi	EN ISO 604	4)	
Impact strength (Charpy)		21.4	ft-lbs/in	DIN EN ISO 179-1		

Thermal properties	condition	value	unit	test method	comment
Glass transition temperature		289	°F	DIN 53765	
Melting temperature		649	°F	DIN 53765	
Service temperature	Intermittent	572	°F	-	
Service temperature	Long Term	500	°F	-	

Electrical properties	condition	value	unit	test method		comment
surface resistivity		1.0*10^{14}	Ω/square	-	1)	(1) Data obtained from public source (2) Data obtained from public source
volume resistivity		1.0*10^{14}	Ω*cm	-	2)	

Other properties	condition	value	unit	test method		comment
Moisture absorption	@ 24 hrs. 73°F	0.02	%	ASTM D 570	1)	(1) Data obtained from public source (2) Data obtained from public source
Moisture absorption		0.03	%	ASTM D 570	2)	
Flammability (UL94)		V0		-		

- TECAPEEK products are based on Victrex® PEEK polymer.

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