

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

Chemical Designation

PEEK (Polyetheretherketone)

Colour

blue grey

Density

1.44 g/cm³

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		test method	comment
Modulus of elasticity (tensile test)	(1mm/min)	624,000	psi	DIN EN ISO 527-2	(1) Data obtained from public source
Tensile strength at yield	50 mm/min	14,500	psi	DIN EN ISO 527-2	(2) Data obtained from public source
Tensile strength at break	50 mm/min	16,100	psi	DIN EN ISO 527-2	(3) Data obtained from public source
Elongation at yield (tensile test)	50 mm/min	4	%	DIN EN ISO 527-1	(4) Data obtained from public source
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		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		test method	comment
surface resistivity		1.0*10 ¹⁴	Ω/square	-	1) (1) Data obtained from public source
volume resistivity		1.0*10 ¹⁴	Ω*cm	-	2) (2) Data obtained from public source
Other properties	condition	value		test method	comment
Moisture absorption		0.03	%	ASTM D 570	1) (1) Data obtained from public source
Moisture absorption	@ 24 hrs. 73°F	0.02	%	ASTM D 570	2) (2) Data obtained from public source
Flammability (UL94)		V0		-	

→ TECAPEEK products are based on Victrex® PEEK polymer.

This information reflects the current state of our knowledge and is intended only to assist and advise. It is given without obligation or liability. It does not assure or guarantee chemical resistance, quality of products or their suitability in any legally binding way. Values are not minimum or maximum values, but guidelines that can be used for comparative purposes in material selection. They are within the normal range of product properties and do not represent guaranteed property values. Testing under individual application circumstances is always recommended. Data is obtained from extruded shapes material unless otherwise noted. References to FDA compliance refer to the resins from which the products were made unless otherwise noted. All trade and patent rights should be observed. All rights reserved. Data sheet values are subject to periodic review, the most recent update can be found at www.ensingerplastics.com.