

TECAPEEK SD black - Stock Shapes (rods, plates, tubes)

Chemical Designation

PEEK (Polyetheretherketone)

Colour

black opaque

Density

1.72 g/cm³

Main features

- electrically static dissipative
- excellent chemical resistance

Target Industries

- semiconductor technology

<i>Mechanical properties</i>	<i>condition</i>	<i>value</i>	<i>unit</i>	<i>test method</i>	<i>comment</i>
Tensile strength	@ 73 °F	18,180	psi	ASTM D 638	(1) Notched
Modulus of elasticity (tensile test)	@ 73 °F	1,200,000	psi	ASTM D 638	
Elongation at break (tensile test)	@ 73 °F	2.3	%	ASTM D 638	
Flexural strength	@ 73 °F	19,900	psi	ASTM D 790	
Modulus of elasticity (flexural test)	@ 73 °F	957,200	psi	ASTM D 790	
Compression strength	1% / 10% strain	7,200/24,640	psi	ASTM D 695	
Compression modulus	@ 73 °F	617,000	psi	ASTM D 695	
Impact strength (Izod)	@ 73 °F	1.08	ft-lbs/in	ASTM D 256	1)
Shore hardness	D scale	94		ASTM D 2240	
Rockwell hardness	M scale	106		ASTM D 785	
<i>Thermal properties</i>	<i>condition</i>	<i>value</i>	<i>unit</i>	<i>test method</i>	<i>comment</i>
Glass transition temperature		318	°F	-	1) (1) DSC
Melting temperature		638	°F	-	2) (2) DSC
Service temperature	short term	572	°F	-	
Service temperature	long term	500	°F	-	
Thermal expansion (CLTE)	73-140°F, long.	2.78	*10 ⁻⁵ in/in/°F	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	73-212°F, long.	2.78	*10 ⁻⁵ in/in/°F	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	212-302°F, long.	3.89	*10 ⁻⁵ in/in/°F	DIN EN ISO 11359-1;2	
<i>Electrical properties</i>	<i>condition</i>	<i>value</i>	<i>unit</i>	<i>test method</i>	<i>comment</i>
surface resistivity		10 ⁶ - 10 ⁹	Ω	DIN IEC 60093	
<i>Other properties</i>	<i>condition</i>	<i>value</i>	<i>unit</i>	<i>test method</i>	<i>comment</i>
Water absorption	24hr	0.02	%	ASTM D 570	

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.

Ensinger Inc. Headquarters
365 Meadowlands Boulevard
Washington, PA 15301, USA

Phone 800-243-3221 Sales
Phone 800-869-4029 Technical
Fax 724-746-9209
sales@ensingerusa.com

Date: 2018/04/25

Version: A0