



PEEK natural

Chemical Designation

PEEK (Polyetheretherketone)

Colour

beige opaque

Density

1.31 g/cm³

Main features

- made exclusively from Victrex® resin
- excellent chemical resistance
- high thermal resistance
- good heat deflection temperature
- good machinability
- very good slide and wear properties
- hydrolysis and superheated steam resistant

Target Industries

- aircraft and aerospace technology
- oil and gas industry
- chemical plant engineering
- semiconductor technology
- food engineering
- automotive industry
- process engineering mechanical engineering

Mechanical properties	condition	value	test method
Modulus of elasticity (tensile test)	1% Sec, 73 °F	650,000 psi	ASTM D 638
Wear (K) factor	40 psi, 50 fpm	30 *10 ⁻¹⁰ in ³ -min/ft-lb-hr	ASTM D 3702
Tensile strength at yield	@ 73 °F	16,000 psi	ASTM D 638
Tensile strength at break	@ 73 °F	16,000 psi	ASTM D 638
Elongation at yield	@ 73 °F	4.9 %	ASTM D 638
Elongation at break	@ 73 °F	40 %	ASTM D 638
Flexural strength	@ 73 °F	26,000 psi	ASTM D 790
Modulus of elasticity (flexural test)	@ 73 °F	600,000 psi	ASTM D 790
Compression strength	@ 73 °F 10% strain	17,500 psi	ASTM D 695
Compression modulus	@ 73 °F	493,000 psi	ASTM D 695
Notched impact strength (Izod)	@ 73 °F	0.95 ft-lbs/in	ASTM D 256
Rockwell hardness	M Scale	99	ASTM D 785
Coefficient of friction	@ 68 °F 1200 in/min, 155 lbs load	0.18	ASTM D 3702

Thermal properties	condition	value	test method
Melting temperature		633 °F	-
Deflection temperature	@264 psi	320 °F	ASTM D 648
Service temperature	Long Term	480 °F	-
Service temperature	short term	572 °F	-
Thermal expansion (CLTE)		2.6*10 ⁻⁵ in/in/°F	ASTM D 696
Thermal conductivity		1.7 BTU-in/hr-ft ² -°F	ASTM C 177

Electrical properties	condition	value	test method
Specific surface resistance		1.0*10 ¹⁶ Ω/square	ASTM D 257
Volume resistivity	@ 73 °F	4.9*10 ¹⁶ Ω*cm	ASTM D 149
Dielectric strength		190 V/mil	ASTM D 257

Other properties	condition	value	test method
Moisture absorption	@ saturation, 73 °F	0.5 %	ASTM D 570
Moisture absorption	@ 24 hrs, 73 °F	0.5 %	ASTM D 570
Flammability (UL94)		V-0 %	-

■ NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.



Values may vary according to brand name. Please ask your Dtmars for more specific information about an individual brand.