

PEEK stands for Polyetheretherketone. It is a high-performance thermoplastic material known for its exceptional mechanical, thermal, and chemical properties. PEEK has a unique combination of high strength, stiffness, and temperature resistance, making it suitable for demanding applications in various industries. It exhibits excellent dimensional stability, chemical resistance, and low flammability.

Chemical Description

Description	Value
Material Type	Semi-Crystalline Thermoplastic
Chemical Name	PEEK Polyetheretherketone
Additives	Unfilled
Color	Tan
UV Resistant	No

Physical Properties

Property	Maximum Unless Range is Specified
Density,lbs/in ³	0.047
Water Absorption, 24 hrs, Immersion,% by wt.	0.1
Coefficient of Linear Thermal Expansion, x10 ⁻⁵ in./in./°F	2.6
Heat Deflection Temp,°F at 263psi	320
Melting Point Temp,°F	644
Max Continuous Operating Temp,°F	480
Minimum Operating Temp,°F	-76
Flammability Rating,UL94	V-0
Dielectric Strength,V/mil	480
Dielectric Constant at 1 MHz	3.3
Thermal Conductivity,BTU-in/ft ² -hr-°F	1.75

Mechanical Properties

Property	Maximum Unless Range is Specified
Tensile Strength,ksi	16
Tensile Modulus,ksi	500
Compressive Strength,ksi	20
Compressive Modulus,ksi	500
Flexural Strength,ksi	25
Flexural Modulus,ksi	600
Elongation at Break	20%
Hardness Rockell	M100/R126
Notched Izod Impact Strength,ft-lb/in	0.6

The material properties in this datasheet are provided by one of the manufacturers collaborating with Naxtry. Please note that material properties may slightly vary among different manufacturers. Naxtry can accommodate customer requests for specific materials or brands.