



Standard PEEK

Alternative Designations

Polyetheretherketone

Key Features

High-temperature resistance • Excellent mechanical properties • High stiffness

Description

Standard PEEK (polyether ether ketone) is a high-performance thermoplastic material. It offers superior properties such as excellent thermal, chemical, and mechanical resistance. It is often used for demanding applications in the aerospace, automotive, healthcare, and electronics industries due to its unique combination of strength, stiffness, and toughness along with low gas permeability and fatigue resistance. Additionally, PEEK is suitable for sterilisation for medial and food contact applications.

Mechanical Properties

Tensile modulus	3738 MPa
Tensile strength	99.9 MPa
Elongation at break	9.1%
Hardness (Shore D)	85

Thermal Properties

Melting temperature (20°C/min)	140°C - 160°C
Heat deflection temperature (1.80 MPa)	152°C

Physical Properties

Density	1.3 g/cm ³
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Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit Materialdatacenter.com for further information on this material.