



# 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 <sup>3</sup> |
|---------|-----------------------|

## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://Materialdatacenter.com) for further information on this material.