



# PEI (Ultem)

## Alternative Designations

PolyEtherImide

## Key Features

Hard • Strong with low moisture absorption • High dielectric strength and stiffness

## Description

PEI (Ultem) is a thermoplastic polyimide. With a strong environmental resistance, this material is highly stiff and stable. It is rigid and retains its strength at high temperatures. It is resistant to heat and creep and has excellent electrical properties. It is flame retardant. It is typically used in engine components, temperature sensors, electronics and medical devices.

## Mechanical Properties

Tensile modulus	3447 MPa
Tensile strength	113.7 MPa
Elongation at break	80%
Flexural strength	137.8 MPa
Flexural modulus	3.4 GPa
Hardness (Shore D)	165

## Thermal Properties

Melting temperature (20°C/min)	340°C
Heat deflection temperature (1.80 MPa)	204°C
Softening temperature	210°C

## Physical Properties

Density	1.28 g/cm <sup>3</sup>
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## 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.