

PEI (Polyetherimide / Ultem) — Technical Datasheet

PEI (Polyetherimide), commonly known by the brand name Ultem, is an amorphous high-performance thermoplastic offering exceptional dimensional stability, high dielectric strength, and inherent flame retardancy. It is widely specified in medical, aerospace, and electronics applications.

Key Properties

Density	1.27 – 1.30 g/cm ³
Tensile Strength	90 – 110 MPa
Flexural Modulus	3.3 – 3.5 GPa
Elongation at Break	30 – 60%
Max Continuous Service Temperature	170°C
Glass Transition Temp	~217°C
Dielectric Strength	~22 kV/mm
Flammability Rating	UL94 V-0 (inherent)
Available Forms	Rod, Sheet, Tube
Standard Colors	Amber, Black

Typical Applications: Medical device housings, surgical instruments, aerospace interior components, electrical connectors, food processing equipment

Key Features: Inherent flame retardancy (UL94 V-0), excellent dielectric properties, steam sterilizable, dimensional stability, UV resistance