PEI Ultem 1000

High performance engineering thermoplastic polymer, with excellent durability, strength, stiffness and heat resistance (UL94-V0).

Mechanical properties

Ultimate tensile strength	125 MPa
Yield strength	125 MPa
Young's modulus (modulus of elasticity)	3.1 - 3.3 GPa
Elongation at break	12 - 35 %

Thermal properties

Maximum service temperature	170 °C
Thermal expansion coefficent	50 10^-6/ºC
Thermal conductivity	0.21 - 0.24 W/(m·°C)

Common applications

Light sockets	
Plugs	
Sensor housings	
Jigs	

PEI (Ultem 1000) CNC Machining Applications & Parts

PEI (Ultem) is a high-performance thermoplastic boasting exceptional strength and rigidity at high temperatures, inherent flame retardancy (UL94 V-0), and excellent dielectric properties for demanding sectors.

Typical Parts We Machine from PEI:

- **Aerospace & Aviation:** Cabin Interior Parts, Ducting, Brackets, Masking Jigs
- **Medical & Sterilizable Equipment:** Surgical Tool Handles, Insulation Components, Trays
- **High-Temperature Electrical:** PCB Insulators, Connectors, Coil Formers

Our Machining Advantage:

Our advanced machining capabilities allow us to consistently produce complex, high-tolerance PEI parts that withstand autoclaving and meet the rigorous specifications of aerospace and medical industries.

Get an Instant Quote for your custom PEI (Ultem) parts today.