

PEEK (Polyetheretherketone) — Technical Datasheet

PEEK is a high-performance engineering thermoplastic known for its excellent balance of mechanical properties, chemical resistance, and thermal stability. With a continuous service temperature of 260°C, PEEK maintains its mechanical integrity in demanding environments where conventional engineering plastics cannot perform.

Key Properties

Density	1.30 – 1.32 g/cm³
Tensile Strength	95 – 100 MPa
Flexural Modulus	3.6 – 4.0 GPa
Elongation at Break	30 – 50%
Max Continuous Service Temperature	260°C
Melting Point	~343°C
Dielectric Strength	~19 kV/mm
Chemical Resistance	Excellent — resistant to most organic and inorganic chemicals
Available Forms	Rod, Sheet, Tube
Standard Colors	Natural (beige), Black

Typical Applications: Semiconductor wafer handling, aerospace components, medical devices, oil & gas seals, industrial machinery

Key Features: Low outgassing, excellent wear resistance, dimensional stability, broad chemical resistance, radiolucent