

PEEK

Polyetheretherketone

Product Description

Strong and stiff material that performs well at elevated temperatures.

PEEK is a strong and stiff plastic material that is often used in applications where performance at elevated temperatures is required.

PEEK has outstanding chemical resistance as well as resistance to steam and hot water. Virgin PEEK is naturally abrasion resistance. Bearing-grade PEEK has enhanced bearing and wear properties.

Key Characteristics

- Strong and stiff
- Excellent chemical resistance
- Good mechanical properties at elevated temperatures
- Bearing grade has excellent wear characteristics
- Excellent hydrolysis resistance
- UL-94 V-0 flammability rating (0.060" thickness)
- Very low smoke and toxic gas emissions when exposed to flame
- FDA compliant grade available
- Glass filled grades available for enhanced stiffness

Typical Applications

- Semiconductor machinery components
- Aerospace parts
- Seals
- Pump and valve components
- Bearing and bushings (bearing grades)
- Electrical components
- Medical instrument parts
- Food processing machinery components

Physical Properties

Property	Units	ASTM Test	PEEK	PEEK 30% Glass filled
Tensile Strength	psi	D-638	14,000	24,620
Flexural modulus	psi	D-790	590,000	1,450,000
Izod impact (notched)	ft-lbs/in	D-256	1.6	1.84
Heat deflection temperature @264 psi	°F	D-648	306	599
Maximum continuous service temp in air	°F	-	480	482
Water absorption (immersion 24 hours)	%	D-570	0.50	0.11
Coefficient of linear thermal expansion	in/in/°F x 10 ⁻⁵	D-595	2.6	1.2
Coefficient of friction (dynamic)	-	-	0.25	0.30

Length, width, thickness, and diameter tolerances vary by size and by manufacturer. Custom sizes and colours available upon request. Many of our materials are available as films with thicknesses of 0.029" or less. Values may vary according to brand name.



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PTFE Manufacturers of Cylinders, Rods, Tubes, Seals, O-Rings, Gaskets,
Custom Machining, Cut-to-size Acrylic & Polycarbonate, Engineering & Industrial Plastics

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