PEEK

Polyether ether ketone (PEEK) is a colourless organic thermoplastic polymer in the polyaryletherketone (PAEK) family, used in engineering applications. It is a semi-crystalline thermoplastic with excellent mechanical and chemical resistance properties that are maintained at high temperatures. It offers outstanding resistance to harsh chemicals, as well as excellent mechanical strength and dimensional stability. Additionally, PEEK provides hydrolysis resistance to steam, water, and seawater.

MECHANICAL PROPERTIES	
Tensile strength	98 MPa
Tension rupture	>60%
Tensile modulus	2410 MPa
Flexural strength	150%
Flexural modulus	96 MPa
Compressive strength	2410 MPa
Compressive modulus ASTM D-695	500 ksi
Shear strength ASTM D-732	8,000 psi
Izod impact strength, Notched ASTM D-256 Type A	950 J/m
Hardness ASTM D-2240	85 Shore D
Rockwell hardness ASTM D-785	74 M Scale

PHYSICAL PROPERTIES	
Specific gravity ASTM D-792	1.2
Refractive index ASTM D-542	1.01 g/cm^3
Water absorption, 24 hours ASTM D-570	0.15%
Poisson's ratio ASTM E-132	0.38

Table provided are general and may vary TW

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APPLICATIONS

Aerospace brackets
Medical spinal cages
Semiconductor components
Pumps and valves
Wire insulation
Automotive gears and bearings

FLAMMABILITY	
Horizontal burn, AEB ASTM D-635	25mm
Ball Indentation Temperature IEC 598-1	>125°C
Ignition temperature, Flash ASTM D-1929	824°F
UL-94 @ 0.5mm UL-94 @ 3.0mm ASTM D635	V-2 V-2

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