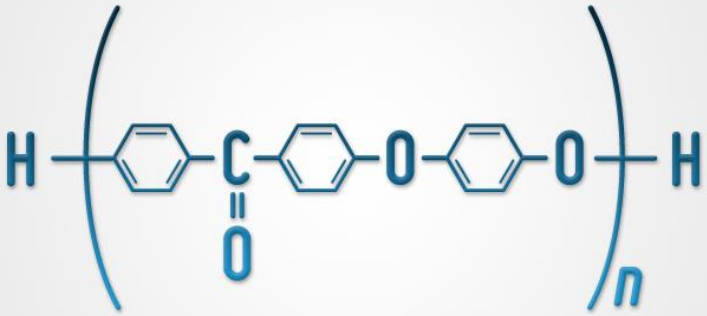
PEEK



PEEK (polyetheretherketone)

PEEK is generally considered to be one of the best performing thermoplastics in the world.

PEEK offers exceptional performance over a wide range of temperatures and extreme conditions.

PEEK has a unique combination of thermal, mechanical and chemical resistance properties. PEEK can withstand a continuous working temperature of 250°C and has an excellent long-term chemical resistance.

Key properties

- Very good chemical resistance
- Excellent strength, rigidity and toughness at elevated temperatures
- FDA approved
- UV resistant (does not age)
- Low permeability
- Low moisture absorption
- Low coefficient of friction
- Excellent electrical properties
- Working temperature from -40°C to +250°C (short periods +310°C)

Properties of PEEK can be improved by adding additives like carbon, glass etc.

Possibilities

- PEEK tubing
- PEEK bushes
- PEEK rings
- PEEK rod
- PEEK pipe
- PEEK film
- PEEK plate/sheet
- PEEK fibre
- Filled: glass, carbon or a combination of carbon/graphite/PTFE

etc.

Technical information

PEEK is often used in the Medical industry, Aerospace, Automotive, Semi-conductor, Electrical industry and other demanding industries.

polyfluor Specialist in PTFE

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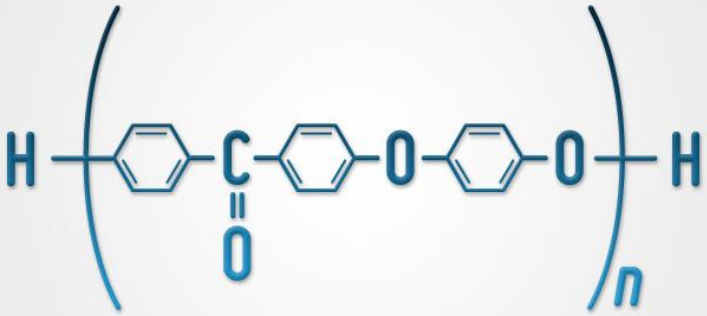
PEEK



General properties PEEK

	Property	Specification	Unit	Value
General	Continuous working temp.	Maximum	°C	250
	Chemical resistance		-	Good
	Specific gravity	D 792	g/cm³	1.30
Electrical	Dielectric constant	D 150 at 10^3 Hz	-	3.1
		D 150 at 10^6 Hz	-	-
	Dielectric dissipation factor	D 150 at 10^3 Hz	-	0.004
		D 150 at 10^6 Hz	-	-
	Dielectric strength	D 149	kV/mm	20
	Volume resistivity	D 257	Ohm·cm	$>10^{16}$
Mechanical	Tensile strength	D 1708, D 638	Mpa	95
	Elongation	D 1708, D 638	%	25
	Compressive strength	D 695	Mpa	120
	Impact strength	D 256 bij +23°C	J/m	No break
	Flexural Modulus	D 790 bij +23°C	Mpa	3650
	Tensile Modulus	D 638	Mpa	3600
	Hardness	D 2240	-	98
Thermal	Melting point		°C	334
	Thermal conductivity	+23°C	W/Kg.m	0.25
	HDT	DIN 75	°C	
	method A			182
	method B			141

Actual properties may change due to processing method, compound type, extruded dimensions and other variables. It is the user's responsibility to evaluate and fully test the suitability of the product for their specific application.