

Data Sheet: PEEK

(Polyetheretherketone)

Details

PEEK is hard, stiff and has high strength. It maintains its chemical resistance at elevated temperatures. In addition, it has excellent resistance to fatigue, stress – crack, high-pressure water and steam. It is used in the production of components such as tubes, bearings, seals, valves, electric insulation and even medical implants.

Key Features

Hard • Stiff • Resistant to chemicals and fatigue

Thermal Properties

Property	Value
Heat deflection [°C]	152
Glass transition temperature [°C]	143
Vicat softening temperature [°C]	250
Coefficient of thermal expansion [K-1 · 10-6]	50
Thermal conductivity [W/m · K]	0.25
Specific heat capacity [J/kg · K]	1340
Melting point [°C]	343

Mechanical Properties

Property	Value
Tensile strength [MPa]	110
Modulus of elasticity [GPa]	4
Flexural strength [MPa]	170

Flexural modulus [GPa]	2.7
Hardness	230
Elongation at break [%]	20

Physical Properties

Property	Value
Density [g/cm ³]	1.31
Water Absorption [%]	0.1
Electrical Resistivity [ohm-cm]	3.3e+021

Reference

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