Xometry

Datasheet

PolyphenyleneSulphide (PPS)

Details

This material has excellent strength of 80MPa and is highly rigid. It is resistant to high temperature, UV light, chemicals and creep. It is dimensionally stable and has good electrical insulation properties. It is also fire resistant. However, it is brittle. It is applied in the production of automotive parts such as fuel injection systems, switches, and electronic devices such as hair dryer grills, valves for steam iron.

Key Features

Rigid, brittle • Resistant to UV light and chemicals.

Thermal Properties

Property	Value
Heat deflection [°C]	95
Glass transition temperature [°C]	88
Vicat softening temperature [°C]	120
Coefficient of thermal expansion [K-1 · 10-6]	5.2
Thermal conductivity [W/m · K]	0.2
Specific heat capacity [J/kg · K]	1600
Melting point [°C]	280

Mechanical Properties

Property	Value
Tensile strength [MPa]	40

Xometry

Datasheet

Modulus of elasticity [GPa]	1.5
Flexural strength [MPa]	260
Flexural modulus [GPa]	1.5
Hardness	84
Impact strength [KJ/m^2]	2
Elongation at break [%]	2

PhysicalProperties

Property	Value
Density [g/cm^3]	1.2
Water Absorption [%]	0.02
Electrical Resistivity [ohm-cm]	15×10^{15}