



Sheet

Rod

Tube

PPS natural

Chemical Designation

PPS (polyphenylene sulfide)

Colour

beige opaque

Density

1.35 g/cm³

Main features

- low water absorption
- low linear expansion coefficient
- extremely resistant to chemicals
- continuous use temperature of 220°C
- high strength and high rigidity
- resistance to fatigue and creep
- recommended for superior sliding wear

Target Industries

- electric/electronic components
- automobile components
- mechanical components
- components for semiconductor
- liquid crystal manufacturing
- testing equipment.

Mechanical properties	Value	Unit	Testing Method ASTM
Tensile strength	79	MPa	
Tensile elasticity	23	%	D638
Bending strength	128	MPa	
Bending elasticity	3.3	GPa	D790
Poisson's ratio	0.37	-	-
Compressive strength	-	MPa	D695
Izod impact strength (notched)	15	J/m	D256
Rockwell hardness	-	-	D785
Physical properties	Value	Unit	Testing Method ASTM
Specific gravity (23°C)	1.35	-	D792
Water absorption (23°C , 24 Hrs)	0.02	%	D570
Linear expansion coefficient		×10 ⁻⁵ /°C	JIS K7197
Thermal conduction	0.2	W/mK	E 1530
Flammability (UL)	V-0 equivalent	-	D570
Thermal properties	Value	Unit	Testing Method ASTM
Deflection temperature under load (1.82 MPa)	112	°C	D648
Continuous use temperature	220	°C	-
Glass transition temperature	88	°C	-
Melting point	278	°C	-
Electrical properties	Value	Unit	Testing Method ASTM
Dielectric strength	15	MV/m	D149
Surface resistance	1016	Ω	
Volume resistance	1018	Ω · cm	
Permittivity 106Hz	3.6	-	
Dielectric tangent 106Hz	0.0011	-	
Certified per the Food Sanitation Act	○		

■ NOTE: The information contained herein are typical values intended for reference and comparison purposes only. They should NOT be used as a basis for design specifications or quality control. Contact us for manufacturers' complete material property datasheets.

