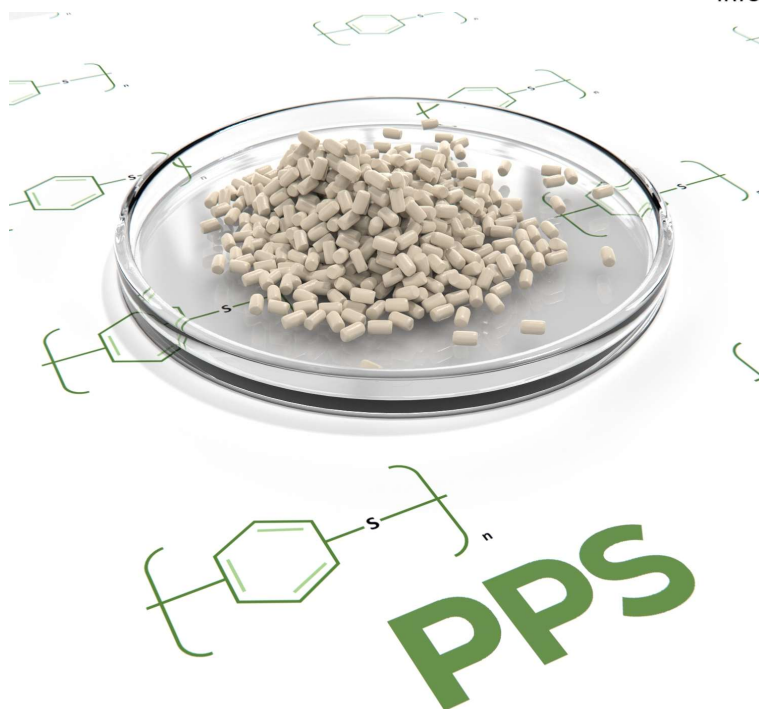




Material

Datasheet — PPS (Polyphenylene sulfide)

High-temperature, chemically resistant thermoplastic with excellent dimensional stability and electrical insulation.

Physical

Property	Unit	Value
Density	g/cm ³	1.35
Water absorption (24 h, 23 °C)	%	0.01
Water absorption (saturation)	%	0.03

Mechanical

Property	Unit	Value
Tensile strength (23 °C)	MPa	85
Tensile modulus (23 °C)	GPa	4.0
Elongation at break	%	2
Flexural strength	MPa	130
Flexural modulus	GPa	4.5

Thermal

Property	Unit	Value
Melting temperature	°C	281
Glass transition (Tg)	°C	90
HDT @ 1.8 MPa	°C	121
Continuous use temperature (air)	°C	200
Thermal conductivity	W/(m·K)	0.30
CTE (linear)	µm/(m·°C)	45

Electrical

Property	Unit	Value
Dielectric strength	kV/mm	20
Relative permittivity (1 MHz)	—	3.0
Dissipation factor (1 MHz)	—	0.003
Volume resistivity	Ω·cm	≥1×10 ¹³

Tribology

Property	Unit	Value
Coefficient of friction (dry)	—	0.30

Moisture & Environment

Property	Unit	Value
Flammability (UL 94, 3 mm)	—	V-0
Chemical resistance	—	Excellent to solvents, fuels, many acids/bases; avoid strong oxidizing acids