

PSU (Polysulfone)

Material Specification (Typical Properties)

Physical

Property	Method	Units	Specification
Specific Gravity	---	g/cm ³	1.24
Water Absorption	DIN EN ISO 62	%	0.05 / 0.1

Mechanical

Property	Method	Units	Specification
Modulus of elasticity (tensile test)	DIN EN ISO 527-2	MPa	3400
Tensile strength	DIN EN ISO 527-2	MPa	79
Tensile strength at yield	DIN EN ISO 527-2	MPa	79
Elongation at yield	DIN EN ISO 527-2	%	37
Elongation at break	DIN EN ISO 527-2	%	45
Flexural strength	DIN EN ISO 178	MPa	106
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	3600
Compression strength	EN ISO 604	MPa	19 / 33
Compression modulus	EN ISO 604	MPa	2700
Impact strength (Charpy)	DIN EN ISO 179-1eU	kJ/m ²	n.b.
Notched impact strength (Charpy)	DIN EN ISO 179-1eA	kJ/m ²	15
Ball indentation hardness	ISO 2039-1	MPa	185

Electrical

Property	Method	Units	Specification
Specific surface resistance	DIN IEC 60093	Ω	10 ¹⁴
Specific volume resistance	DIN IEC 60093	Ω*cm	10 ¹⁴

Thermal

Property	Method	Units	Specification
Glass transition temperature	DIN 53765	°C	-60
Service temperature	---	°C	160-180
Melting temperature	DIN 53765	°C	n.a.
Thermal expansion (CLTE)		10 ⁻⁵ K ⁻¹	6
Specific heat	ISO 22007-4:2008	/(g*K)	1.2
Thermal conductivity	ISO 22007-4:2008	W/(K*m)	0.21

Disclaimer. These figures are typical values for the material and do not represent a product specification. Properties will vary depending on source of raw material, method of processing, physical form of product, direction of measurement etc.