

PES
(Polysulfone)

Material Specification
(Typical Properties)

Physical

Property	Method	Units	Specification
Moisture Absorption	ASTM D 570	%	0.30

Mechanical

Property	Method	Units	Specification
Modulus of elasticity (tensile test)	ASTM D 638	psi	360,000
Tensile strength at break	ASTM D 638	psi	10,200
Elongation at break	ASTM D 638	%	50
Flexural strength	ASTM D 790	psi	15,400
Modulus of elasticity (flexural test)	ASTM D 790	psi	390,000
Impact strength (Izod)	ASTM D 256	Ft-lbs/in	1.3
Rockwell hardness	ASTM D 785	---	120
Coefficient of friction	ASTM D 702	---	0.37

Electrical

Property	Method	Units	Specification
Volume resistivity	ASTM D 257	$\Omega \cdot \text{cm}$	5×10^{16}
Dielectric strength	ASTM D 149	V/mil	425
Dissipation factor	ASTM D 150		0.001
Dielectric constant	ASTM D 150		3.1

Thermal

Property	Method	Units	Specification
Deflection temperature	ASTM D 648 1)	$^{\circ}\text{F}$	345
Deflection temperature	ASTM D 648 1)	$^{\circ}\text{F}$	358
Service temperature		$^{\circ}\text{C}$	340
Service temperature		$^{\circ}\text{C}$	285
Thermal expansion (CLTE)	ASTM D 696 1)	in/in/ $^{\circ}\text{F}$	3.1×10^{-5}