

PEI (Polyetherimide)

Material Specification (Typical Properties)

Physical

Property	Method	Units	Specification
Specific Gravity	---	g/cm ³	1.28
Water Absorption	DIN EN ISO 62	%	0.05 / 0.1

Mechanical

Property	Method	Units	Specification
Modulus of elasticity	DIN EN ISO 527-2	MPa	3200
Tensile Strength	DIN EN ISO 527-2	MPa	127
Tensile strength at yield	DIN EN ISO 527-2	MPa	127
Elongation at yield	DIN EN ISO 527-2	%	7
Elongation at break	DIN EN ISO 527-2	%	35
Flexural strength	DIN EN ISO 178	MPa	164
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	330
Compression strength	DIN EN ISO 604	MPa	23/41
Compress modulus	DIN EN ISO 604	MPa	2800
Impact Strength (Charpy)	DIN EN ISO 179-1eU	Kj/m ²	113
Ball indentation hardness	ISO 2039-1	MPa	225

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		216	°C
Melting Temperature		NA	°C
Service Temperature	Short term	200	°C
Service Temperature	Long term	170	°C
Thermal expansion (CLTE)	23-60°C, long	5	10 ⁻⁵ K ⁻¹
Thermal expansion (CLTE)	23-100°C, long	5	10 ⁻⁵ K ⁻¹
Thermal expansion (CLTE)	100-150°C, long	6	10 ⁻⁵ K ⁻¹
Specific Heat		1.2	J/(g*K)
Thermal conductivity		0.21	W/(K*m)

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.