

**PA 6 (Polyamide 6)
Material Specification
(Typical Properties)**

Physical

Property	Method	Units	Specification
Specific Gravity	---	g/cm ³	1.14
Water Absorption	DIN EN ISO 62	%	0.3 / 0.6

Mechanical

Property	Method	Units	Specification
Modulus of elasticity (tensile test)	DIN EN ISO 527-2	MPa	3300
Tensile strength	DIN EN ISO 527-2	MPa	79
Tensile strength at yield	DIN EN ISO 527-2	MPa	78
Elongation at yield	DIN EN ISO 527-2	%	4
Elongation at break	DIN EN ISO 527-2	%	130
Flexural strength	DIN EN ISO 178	MPa	100
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	2900
Compression strength	EN ISO 604	MPa	24 / 41
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	7
Ball indentation hardness	ISO 2039-1	MPa	155

Electrical

Property	Method	Units	Specification
Specific surface resistance	DIN IEC 60093	Ω	10 ¹⁴
Specific volume resistance	DIN EN 61340-2-3	$\Omega \cdot \text{cm}$	10 ¹⁴
Dielectric strength	ISO 60243-1	kV/mm	31
Resistance to tracking (CTI)	DIN EN 60112	V	600

Thermal

Property	Method	Units	Specification
Glass transition temperature	DIN 53765	°C	104
Melting temperature	DIN 53765	°C	221
Service temperature	---	°C	100-160
Thermal expansion (CLTE)	DIN EN ISO 11359-1;2	10 ⁻⁵ K ⁻¹	12
Thermal expansion (CLTE)	DIN EN ISO 11359-1;2	10 ⁻⁵ K ⁻¹	13
Specific heat	ISO 22007-4:2008	J/(g*K)	1.6
Thermal conductivity	ISO 22007-4:2008	W/(K*m)	0.37

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.