

ABS (Acrylnitrile-Butadiene-Styrene)

Material Specification (Typical Properties)

Physical

Property	Method	Units	Specification
Specific Gravity	---	g/cm ³	1.04
Water Absorption	DIN EN ISO 62	%	0.07 / 0.2

Mechanical

Property	Method	Units	Specification
Modulus of elasticity (tensile test)	DIN EN ISO 527-2	MPa	1700
Tensile strength	DIN EN ISO 527-2	MPa	32
Tensile strength at yield	DIN EN ISO 527-2	MPa	32
Elongation at yield	DIN EN ISO 527-2	%	3
Elongation at break	DIN EN ISO 527-2	%	49
Flexural strength	DIN EN ISO 178	MPa	49
Modulus of elasticity (flexural test)	DIN EN ISO 178	MPa	1600
Compression strength	EN ISO 604	MPa	15 / 26
Compression modulus	DIN EN ISO 527-2	MPa	1400
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	34
Ball indentation hardness	ISO 2039-1	MPa	74

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	104
Service temperature	DSC	°C	100
Service temperature	DSC	°C	75