



PA 12 (SLS)

Being a solid material, polyamide powder has the attractive feature of being self-supporting for the generated product sections. This makes support structure redundant. Polyamide allows the production of fully functional prototypes or end-use parts with high mechanical and thermal resistance. Polyamide parts have excellent long-term stability and are resistant against most chemicals. They can be made watertight by impregnation. The PA material used by Materialise is certified as biocompatible and food-safe under certain conditions.

MEASUREMENT	VALUE	STANDARD
Density	0.95 ±0.03 g/cm ³	
Tensile Strength	48 ±3 MPa	DIN EN ISO527
Tensile Modulus	1650 MPa	DIN EN ISO527
Flexural Strength	41 MPa	D790
Elongation at Break	20 ±5%	DIN EN ISO527
Flexural Modulus	1500 N/mm ²	DIN EN ISO178
Charpy – Impact strength	53 ±3.8 kJ/m ²	DIN EN ISO179
Charpy – Notched Impact Strength	4.8 ±0.3 kJ/m ²	DIN EN ISO179
Izod - Notched Impact Strength	4.4 ±0.4 kJ/m ²	DIN EN ISO180
Ball Indentation Hardness	77.6 ±2	DIN EN ISO2039
Shore D/A-hardness	D75 ±2	DIN 53505
Heat Deflection Temperature	86 °C	ASTM D648 @ 1.82 MPa

Actual values may vary with build condition

For more information on this material, please visit mtls.me/pa-12-sls.