



SLS DETAILS

Standard accuracy: $\pm 0.3\%$ (with lower limit of ± 0.3 mm).

Minimum wall thickness: 0.8 mm (1 mm for PA Alu-filled and PA-GF), but living hinges are possible at 0.3 mm

Datasheet					
<i>Laser Sintering</i>					
	Units	Condition	PA 12	PA-GF	PA Alu-filled
Description			Polyamide 12 standard	Stiff	Stiff, metallic look, and easy to mill
Tensile Modulus	MPa	DIN EN ISO 527	1650 +/- 150	3200 +/- 200	3800 +/- 150
Tensile Strength	MPa	DIN EN ISO 527	48 +/- 3	51 +/- 3	48 +/- 3
Elongation at Break	%	DIN EN ISO 527	20 +/- 5	6 +/- 3	3.5 +/- 1
Flexural Modulus	N/mm ²	DIN EN ISO 178	1500 +/- 130	2900 +/- 150	3600 +/- 150
Charpy – Impact strength	MPa	DIN EN ISO 179	53 +/- 3.8	35 +/- 6	29 +/- 2
Charpy – Notched Impact Strength	MPa	DIN EN ISO 179	4.8 +/- 0.3	5.4 +/- 0.6	4.6 +/- 0.3
Izod – Impact Strength	kJ/m ²	DIN EN ISO 180	32.8 +/- 3.4	21.3 +/- 1.7	NA
Izod - Notched Impact Strength	kJ/m ²	DIN EN ISO 180	4.4 +/- 0.4	4.2 +/- 0.3	NA
Ball Indentation Hardness		DIN EN ISO 2039	77.6 +/- 2	98	NA
Shore D/ A-hardness		DIN 53505	D 75 +/- 2	D 80 +/- 2	D 76 +/- 2
Heat Deflection Temp	°C	ASTM D648 (1.82MPa)	86	110	130
Vicat Softening Temperature B/50	°C	DIN EN ISO 306	163	163	169
Vicat Softening Temperature A/50	°C	DIN EN ISO 306	181	179	NA
Density	g/cm ³		0.95 +/- 0.03	1.22 +/- 0.03	1.36 +/- 0.05
Actual values may vary with build conditions					