

Polyamide

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Everything you need to know about notched izod impact, hardness, heat deflection temperature, and all other advanced properties of polyamide.

Production time:	10-15 business days
Standard accuracy:	± 0.3% (with lower limit of ± 0.3 mm).
Surface finish:	Laser Sintering parts typically have a grainy surface but all kinds of (very) fine finishing are possible. They can be sandblasted, colored (impregnated), painted, covered, coated, ...
Maximum part dimensions:	Dimensions are unlimited when the parts may be composed (glued) of several sub-parts. Our build area is 650 x 330 x 560 mm.
Minimum wall thickness:	0.8-1 mm, but living hinges are possible at 0.3 mm
Capacity:	2 Sinterstation 2500 HS HiQ with a build volume of 360 x 310 x 450 mm 2 EOS P380 machine with a build volume of 340 x 340 x 620 mm 5 EOSINT P730 machines with a build volume: 700 x 380 x 580 mm 1 EOS Formiga P100 machine with a build volume: 200 x 250 x 300 mm 7 DTM machines with a build volume: 360 x 310 x 400 mm

Polyamide-Alumide				
	Units	Condition	Polyamide	Alumide
Tensile Modulus	MPa	DIN EN ISO 527	1650+/- 150	3800+/- 150
Tensile Strength	MPa	DIN EN ISO 527	48 +/- 3	48 +/- 3
Elongation at Break	%	DIN EN ISO 527	20 +/- 5	3.5 +/- 1
Flexural Modulus	N/mm ²	DIN EN ISO 178	1500 +/- 130	3600 +/- 150
Charpy – Impact strength	MPa	DIN EN ISO 179	53 +/- 3.8	29 +/- 2
Charpy – Notched Impact Strength	MPa	DIN EN ISO 179	4.8 +/- 0.3	4.6 +/- 0.3
Izod – Impact Strength	J/m ²	DIN EN ISO 180	32.8 +/- 3.4	NA
Izod - Notched Impact Strength	J/m ²	DIN EN ISO 180	4.4 +/- 0.4	NA
Ball Indentation Hardness		DIN EN ISO 2039	77.6 +/- 2	NA
Shore D-hardness		DIN 53505	75 +/- 2	76 +/- 2
Heat Deflection t°	°C	ASTM D648 (1.82MPa)	86	130
Vicat Softening Temperature B/50	°C	DIN EN ISO 306	163	169
Vicat Softening Temperature A/50	°C	DIN EN ISO 306	181	NA

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