

MATERIALS COMPARISON - Design guidelines

Plastics



A brand of BASF - We create chemistry

MATERIAL	LAYER THICKNESS	MINIMUM WALL THICKNESS	ACCURACY	MAX SIZE (mm)	STEMMED ELEMENTS	MINIMUM VISIBLE DETAIL	MINIMUM CLEARANCE	MIN SIZE OF TEXT	ENGRAVING	EMBOSSING	ENLARGEMENT RATIO	INTERLOCKING PARTS	ASSEMBLY	HOLLOWING	ENCLOSED PARTS
PA12	100 – 120µm	Flexible: 0.8mm Rigid: 2mm	0,3% (min of ± 0.3 mm)	Raw: 675 x 366 x 545 mm	0.8mm with support 1mm without support	0.3 mm	0.5 mm	0.5 mm	0.5 mm	0.4mm	1/1	Yes	Yes	Yes	Yes
Nylon 3200 Glass Filled	100 µm	Flexible: 1.5mm Rigid: 2mm	-	Raw: 190 x 240 x 315 mm	-	1 mm	0.5 mm	1 mm	-	-	1/1	Yes	Yes	Yes	Yes
Alumide	150µm	1.5mm	-	Raw: 190 x 240 x 315 mm	-	1 mm	0.5 mm	1 mm	-	-	1/1	Yes	Yes	Yes	Yes
PEBA 2301	100 – 150µm	1.5mm	0,3% (min of ± 0.3 mm)	240 x 315 x 190 mm	0.8mm with support 1mm without support	0.3 mm	-	0.5 mm	0.5 mm	0.4mm	1/1	Yes	Yes	Yes	Yes
Ultrasint® TPU 88A	100µm	0.8mm	0,3% (min of ± 0.3 mm)	300 x 300 x 300 mm	1mm with support 1.2m without support	-	0.5 mm	-	0.7 mm	0.7 mm	1/1	Yes	Yes	Yes	Yes
Ultrasint® PA6 FR	100µm	0.8mm	0,3% (min of ± 0.3 mm)	360 x 360 x 420 mm	0.8mm with support 1mm without support	-	0.5 mm	-	0.5 mm	0.5 mm	1/1	Yes	Yes	Yes	Yes
Ultrasint® PA6 ME	100µm	0.8mm	0,3% (min of ± 0.3 mm)	360 x 360 x 420 mm	0.8mm with support 1mm without support	-	0.5 mm	-	0.5 mm	0.5 mm	1/1	Yes	Yes	Yes	Yes
Ultrasint® PP nat 01	120µm	1mm	0,3% (min of ± 0.3 mm)	260 x 260 x 300mm	1mm with support 1.2m without support	-	0.7 mm	-	0.7 mm	0.7 mm	1/1	Yes	Yes	Yes	Yes

All materials available at: [sculpteo.com](https://www.sculpteo.com)

MATERIALS COMPARISON - Design guidelines

Plastics



A brand of BASF - We create chemistry

	MATERIAL	LAYER THICKNESS	MINIMUM WALL THICKNESS	ACCURACY	MAX SIZE (mm)	STEMMED ELEMENTS	MINIMUM VISIBLE DETAIL	MINIMUM CLEARANCE	MIN SIZE OF TEXT	ENGRAVING	EMBOSSING	ENLARGEMENT RATIO	INTERLOCKING PARTS	ASSEMBLY	HOLLOWING	ENCLOSED PARTS
MJF	PA12	80µm	Flexible: 0.6mm Rigid: 2mm	0,3% (min of ± 0.3 mm)	Raw: 370 x 274 x 380 mm	0.7mm with support 0.9mm without support	0.2 mm	0.5 mm	0.4mm	0.3 mm	0.4 mm	1/1	Yes	Yes	Yes	Yes
	PP	120µm	0.8mm	0,3% (min of ± 0.3 mm)	370 x 274 x 380 mm	1mm with support 1.2m without support	-	0.5 mm	-	0.5 mm	0.5 mm	1/1	Yes	Yes	Yes	Yes
	Ultrasint® TPU01	100µm	0.8mm	0,3% (min of ± 0.3 mm)	274 x 370 x 380 mm	1mm with support 1.2m without support	-	0.5 mm	-	0.7 mm	0.7 mm	1/1	Yes	Yes	Yes	Yes
FDM	PLA Big-Rep	-	-	-	1 x 1 x 1 m	-	-	-	-	-	-	-	-	No	No	No
Colorjet	Multicolor	100 µm	2 mm	-	254 x 381 x 203 mm	-	0.4 mm	-	0.5 mm	0.5 mm	0.4 mm	1/1	No	Yes	No	No

All materials available at: [sculpteo.com](https://www.sculpteo.com)