

MATERIALS COMPARISON - DESIGN GUIDELINES

Resins



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	LAYER THICKNESS	MINIMUM WALL THICKNESS	ACCURACY	MAX SIZE (mm)	MINIMUM VISIBLE DETAIL	ENGRAVING	EMBOSSING	ENLARGEMENT RATIO	INTERLOCKING & ENCLOSED PARTS	ASSEMBLY	HOLLOWING
	Print resolution	Minimum recommended wall size to ensure there are no errors during printing	Expected degree of dimensional accuracy	Maximum dimensions possible to respect an item	Minimum dimension to ensure detail visibility	Graphic elements hollowed out on the surface of the model	Graphic elements raised above the surface of the model	Minimum ratio to be observed between the diameter of a hole and the thickness of the wall of the model	Possibility to print parts that will articulate between each other & Possibility to print a model with volume inclusions	Possibility of assembling parts while leaving a minimum space between them	Optimization of the weight and price of a model by removing internal material
MATERIAL											
Technologie DLS											
Rigid Polyurethane	100 µm	Unsupported : 2.5 mm Supported : 1 mm	XY: ± 0.1 mm Z: ± 0.4 mm	180 x 110 x 290 (z) mm	0.5 m	0.3 mm	0.3 mm	1/1	No & No	No	No
Elastomeric Polyurethane	100 µm	Unsupported : 2.5 mm Supported : 1 mm	-	180 x 110 x 100 mm	0.6 m	0.3 mm	0.3 mm	1/1	No & No	Yes	No
Technologie SLA											
Prototyping Resin	100 µm	0.8 mm	-	144 x 144 x 174 mm	-	0.5 mm	0.5 mm	1/1	Not recommended	No	Not recommended
Technologie Polyjet											
VeroWhite	28 µm	2 mm	-	203 x 254 x 251 mm	0.2 m	0.5 mm	0.5 mm	1:6	No & No	Yes	Yes
VeroClear	28 µm	2 mm	-	203 x 254 x 251 mm	0.2 m	0.5 mm	0.5 mm	1/1	Yes & Yes	Yes	Yes
Technologie DLP / LCD											
Ultracur3D® EPD 1006 3D	100 µm	0.6 mm	± 100µm (Over 90% of scanned data within +/- µm)	510 x 280 x 350 mm	-	0.3 mm	0.3 mm	1/1	No & No	-	No
Ultracur3D® ST 45	100 µm	0.6 mm	± 200µm	192 x 108 x 330 mm	-	0.3 mm	0.3 mm	1/1	No & No	-	No
Ultracur3D® ST 45 B	100 µm	0.6 mm	± 200µm	192 x 108 x 330 mm	-	0.3 mm	0.3 mm	1/1	No & No	-	No
Ultracur3D® RG 35	100 µm	Supported: 0.6 mm Unsupported: 1 m	± 200µm	192 x 108 x 330 mm	-	0.3 mm	0.5 mm	1/1	No & No	-	No