

Materials Design Guidelines

Click the material name to learn more.

Material	Max. Bounding Box	Min. Bounding Box	Min. Supported Walls	Min. Unsupported Walls	Min. Supported Wires	Min. Unsupported Wires	Min. Embossed Details	Min. Engraved Details	Single Escape Hole Diameter	Multiple Escape Hole Diameter	Clearance	Sprues	Other
Accura 60, Accura Xtreme 200	609 x 711 x 457 mm	3.8 x 3.8 x 3.8 mm	0.4 mm	0.5 mm	0.5 mm	0.6 mm	0.3 mm High & 0.4 mm Wide	0.3 mm High & 0.3 mm Wide	5.0 mm	4.0 mm	0.3 mm	1.3 mm thick and two connections	Interlocking: No Enclosed: No
Accura Xtreme	482 x 482 x 558 mm	3.8 x 3.8 x 3.8 mm	0.4 mm	0.5 mm	0.5 mm	0.6 mm	0.3 mm High & 0.4 mm Wide	0.3 mm High & 0.3 mm Wide	5.0 mm	4.0 mm	0.3 mm	1.3 mm thick and two connections	Interlocking: No Enclosed: No
Fine Detail Plastic	282 x 181 x 150 mm	X + Y + Z > 12 mm	0.3 mm	0.6 mm	0.6 mm or 1.0 mm if bearing weight	0.8 mm	0.1 mm H&W	0.1 mm H&W	One escape hole is not adequate for this material	4.0 mm	0.05 mm	1.0 mm thick and two connections	Interlocking : Yes Enclosed : No
MJF Plastic PA 12	284 x 380 x 380 mm	4 x 4 x 1 mm	0.4 mm	0.5 mm	0.8 mm	0.9 mm	0.2 mm H&W for details, 0.4 mm H&W for text	0.2 mm H&W for details, 0.4 mm H&W for text	4.0 mm	2.0 mm	0.6 mm	2.0 mm thick and two connections	Interlocking : Yes Enclosed : Yes
MJF Plastic PA 12 Smooth	284 x 380 x 380 mm	10 x 10 x 10 mm	1.5 mm	1.5 mm	1.5 mm	1.5 mm	0.3 mm High & 0.5 mm Wide	0.3 mm High & 0.4 mm Wide	10 mm	8.0 mm	5.0 mm	2.0 mm thick and two connections	Interlocking: No Enclosed: No
MJF Plastic PA 12 GB	284 x 380 x 380 mm	4 x 4 x 1 mm	0.75 mm	1.0 mm	1.0 mm	1.0 mm	0.5 mm H&W	0.5 mm H&W	4.0 mm	2.0 mm	0.6 mm	2.0 mm thick and two connections	Interlocking : Yes Enclosed : Yes
Multi-Color Polyjet	490 x 390 x 200 mm	2.5 x 2.5 x 2.5 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	0.5 mm H&W	0.5 mm H&W	-	-	0.4 mm	No	Interlocking : Yes Enclosed : Yes
PA11	290 x 290 x 600 mm	0.7 x 0.7 x 0.7 mm X + Y + Z ≥ 7.5 mm	0.4 mm	0.5 mm	0.5 mm	1.0 mm	0.4 mm H & 1.0 mm W	0.4 mm H & 1.0 mm W	4.0 mm	3.0 mm	1.0 mm	2.0 mm thick and two connections	Interlocking : Yes Enclosed : Yes
Sandstone	250 x 380 x 200 mm	X + Y + Z > 10 mm	2.0 mm	3.0 mm	2.0 mm	3.0 mm	0.4 mm H&W	0.4 mm H&W	25 mm	15 mm	0.9 mm	No	Interlocking : Yes Enclosed : Yes
TPU	200 x 200 x 200 mm	X + Y + Z ≥ 15 mm	0.7 mm	0.7 mm	1.0 mm	2.0 mm	1.0 mm H&W	1.5 mm H&W	4.0 mm	3.0 mm	1.0 mm	1.5 mm thick and two connections	Interlocking : Yes Enclosed : Yes
Natural White Versatile Plastic	650 x 350 x 550 mm	X + Y + Z ≥ 7.5 mm	0.7 mm	0.7 mm	0.8 mm	1.0 mm	0.2 mm H&W for details, 0.5 mm H&W for text	0.2 mm H&W for details, 0.5 mm H&W for text	4.0 mm	2.0 mm	0.5 mm	2.0 mm thick and two connections	Interlocking : Yes Enclosed : Yes
Processed & Premium Versatile Plastic	200 x 150 x 150 mm	X + Y + Z ≥ 25.0 mm	0.7 mm	0.7 mm	0.9 mm	1.0 mm	0.2 mm H&W for details, 0.5 mm H&W for text	0.2 mm H&W for details, 0.5 mm H&W for text	4.0 mm	2.0 mm	0.5 mm	2.0 mm thick and two connections	Interlocking : Yes Enclosed : Yes
UMA, EPU, RPU	490 x 390 x 200 mm	2.5 x 2.5 x 0.5 mm	1 mm	2.5 mm	1 mm	2.5 mm	3.0 mm H&W	3.0 mm H&W	3.0 mm	1 mm	0.5 mm	No	Interlocking: No Enclosed: No

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Aluminum	250 x 250 x 200 mm	X + Y + Z > 30 mm	1.0 mm	1.0 mm	1.5 mm	1.5 mm	0.4 mm H&W for details, 0.5 mm H & 0.8 mm W for text	0.4 mm H&W for details, 0.5 mm H & 1.0 mm W for text	4.0 mm	2.0 mm	0.6 mm	No	Interlocking : Yes Enclosed : No
Matte Bronzed-Silver Steel, Matte Black Steel	762 x 393 x 393 mm	6.0 x 6.0 x 6.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm H&W	1.0 mm H&W	4.0 mm	2.0 mm	3.0 mm	No	Wall thickness in Steel is according the size of the model.
Polished Bronzed-Silver Steel, Polished Bronze Steel, Polished and Bronzed Black Steel	762 x 393 x 393 mm	6.0 x 6.0 x 3.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm H&W	1.0 mm H&W	4.0 mm	2.0 mm	3.0 mm	No	Wall thickness in Steel is according the size of the model.
Polished Gold Steel, Polished Nickel Steel	180 x 180 x 180 mm	6.0 x 6.0 x 3.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm	1.0 mm H&W	1.0 mm H&W	4.0 mm	2.0 mm	3.0 mm	No	Interlocking: No Enclosed: No
Stainless Steel 316L	127 x 127 x 76.2 mm	15 x 15 x 3.0 mm	0.8 mm	1.0 mm	0.8 mm	1.0 mm	1.0 mm H&W	1.0 mm H&W	5.0 mm	2.5 mm	0.3 mm	No	Interlocking: No Enclosed: No
Brass, Bronze, Copper, Silver	89 x 89 x 100 mm 75 x 75 x 40 mm (Interlocking)	2.4 x 2.4 x 0.6 mm	0.6 mm (Natural) 0.8 mm (Polished)	0.6 mm (Natural) 0.8 mm (Polished)	0.8 mm (Interlocking) 1.5 mm	1.0 mm 1.5 mm (Interlocking)	0.35 mm H&W (Natural) 0.4 mm H&W (Polished)	0.3 mm H&W (Natural) 0.4 mm H&W (Polished)	4.0 mm	2.0 mm	0.3 mm 1.0 mm (Interlocking)	No	Interlocking: Up to 6 parts for Natural & Polished excluding Copper Enclosed: Up to 6 parts for Natural & Polished excluding Copper
Plated Brass (Gold, Rhodium)	89 x 89 x 100 mm	2.4 x 2.4 x 0.6 mm	0.8 mm	0.8 mm	0.8 mm	0.8 mm	0.4 mm H&W	0.35 mm H&W	4.0 mm	2.0 mm	0.3 mm	No	Interlocking: No Enclosed: No
Gold, Platinum	89 x 89 x 100 mm	2.4 x 2.4 x 0.6 mm	0.8 mm	0.8 mm	0.8 mm	1.0 mm	0.4 mm H&W	0.35 mm H&W	4.0 mm	2.0 mm	0.3 mm	No	Interlocking: No Enclosed: No