



# 3D printing material guide

[www.tinkercad.com](http://www.tinkercad.com)



try first with cheaper material!

cm<sup>3</sup> = \$

solid - hollow  
★ ☆  
good - better

plastic

## Nylon (Polyamide)

(also called White, strong & flexible / Durable plastic / White plastic)

- Strong and flexible plastic
- 1mm minimum wall thickness
- naturally white, but you can get it colored
- about 10 layers per 1mm
- made from powder
- Alumide = Polyamide + Aluminum
- Interlocking, moving parts possible (chain)



plastic

## ABS (Home printers)

(also called Durable gloss plastic)

- strong plastic like legos are
- made from spaghetti like filament
- many color options
- about 3 layers per 1mm
- 1mm minimum wall thickness



plastic

## Resin

(White-, Black-, Transparent detail / White detail resin / High detail-, Transparent-, Paintable Resin)

- Rigid and a bit delicate
- Liquid Photopolymer cured with UV light
- white, black & transparent most typical colors
- about 10 layers per 1mm
- 1mm minimum wall thickness



metal

# Stainless steel

- Very strong material
- Made with multiple steps or from powder directly
- Coloring options like gold and bronze plating
- about 6 layers per 1mm
- 3mm minimum wall thickness



Strong &amp; rigid

3mm

Min. wall thickness



Details &amp; texture

\$\$\$\$\$

Price

metal

# Gold / Silver

- Strong materials
- made from wax and then casted
- about 10 layers per 1mm
- 0.5mm minimum wall thickness



Strong &amp; rigid

0.5mm

Min. wall thickness



Details &amp; texture

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Price

metal

# Titanium

- Strongest material
- Direct metal laser sintering
- about 30 layers per 1mm
- 0.2mm minimum wall thickness



Strongest &amp; rigid

0.2mm

Min. wall thickness



Details &amp; texture

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Price

others

# Ceramic

- Rigid & Delicate
- First ceramic is printed then surface glazed
- naturally white
- about 6 layers per 1mm
- 3mm minimum wall thickness



Rigid &amp; delicate

3mm

Min. wall thickness



Details &amp; texture

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Price

others

# Gypsum

(also called Sandstone / Rainbow ceramics / Multicolor)

- Rigid & Delicate
- made from powder
- naturally white, but you can get it with colors
- about 10 layers per 1mm
- 2mm minimum wall thickness
- Interlocking, moving parts possible (chain)



Rigid &amp; delicate

2mm

Min. wall thickness



Details &amp; texture

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Price