

M-Fil Cuivre

M-Fil Cuivre is our 80% copper filled filament which is easy to print, sand & polish. With M-Fil Cuivre you can create the most beautiful objects with real metal characteristics, such as a 3x higher weight than PLA, a metal feel & touch and thermo-conductivity. Due to the high percentage of fillers M-Fil Cuivre has virtually no shrinkage. A special lubricant increases the flow and prevents M-Fil Cuivre to adhere to the nozzle. Finally, all above combined with the correct hardness results in a filament that can be printed on almost every type of FDM 3D printer available on the market with retraction enabled on nozzles ≥ 0.35 mm.

Material features:

- Approx. 80% copper content
- PLA-based, 3 times heavier
- Metal feel & “cold” touch
- Excellent printability on both direct & Bowden style 3D printers
- Processing additive added for easy & reliable printing
- Quick & easy polishing and other post-processing
- Possibility to print with retraction
- Works on nozzles ≥ 0.35 mm



Printed Sanded & Polished Patinated

Filament specs.

Size	Ø tolerance	Roundness
1,75mm	$\pm 0,05$ mm	$\geq 95\%$
2,85mm	$\pm 0,10$ mm	$\geq 95\%$

Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	3,59 g/cc
MFI 210°C/2,16 kg	ISO 1133	85 g/10min
Tensile strength at yield	ISO 527	16 MPa
Elongation strain at break	ISO 527	31,3%
Elongation strain at yield	ISO 527	1,6%
Tensile (E) Modulus	ISO 527	3550 MPa
Impact strength - Charpy method 23°C	ISO 179 1eA	2,94 kJ/m ²
Printing temp.	Internal method	210 \pm 10°C
Vicat softening temp.	ISO 306	65°C

Additional info:

M-Fil Cuivre can be printed without a heated bed, but if you do have a heated bed the recommended temperature is $\leq 60^\circ\text{C}$. Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly. M-Fil Cuivre can be used on all common desktop FDM or FFF technology 3D printers.

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