

| Bambulab: | | PLA | PLA-CF | ABS | ASA | PETG | PETG-CF | PC | TPU 95A | PET-CF | PAHT-CF |
|--------------|-----------------|---------------------|------------------------|---------------------|----------------------|----------------------|-------------------------|----------------------|-------------------------|------------------------|-------------------------|
| | Price USD | 25 \$/kg | 35 \$/kg | 25 \$/kg | 30 \$/kg | 25 \$/kg | 35 \$/kg | 40 \$/kg | 42 \$/kg | 85 \$/kg 💰 | 95 \$/kg 💰 |
| Props | UV resistance | ★★ | ★★ | ★ | ★★★★★ | ★★★★★ | ★★★★★ | ★ | ★★★ | ★★★★★ | ★ |
| | Heat resistance | 57 °C ❄️ | 55 °C ❄️ | 87 °C | 100 °C 🔥 | 69 °C ❄️ | 74 °C ❄️ | 117 °C 🔥 | N/A | 205 °C 🔥 | 194 °C 🔥 |
| | Saturated water | 0.43% | 0.42% | 0.65% 💧 | 0.45% | 0.32% | 0.30% | 0.25% | 1.16% 💧 | 0.37% | 0.88% 💧 |
| Resistant | Toughness | 27 kj/m² | 23 kj/m² | 39 kj/m² | 41 kj/m² 🤪 | 53 kj/m² 🤪 | 41 kj/m² | 35 kj/m² | 125 kj/m² 🤪 | 36 kj/m² | 58 kj/m² 🤪 |
| Hard | Strength | 76 MPa | 96 MPa 🤪 | 68 MPa | 65 MPa | 81 MPa | 83 MPa | 108 MPa 🤪 | N/A | 149 MPa 🤪 | 140 MPa 🤪 |
| Flexible | Stiffness | 2.8 GPa | 3.7 GPa 🤪 | 1.9 GPa 😊 | 1.9 GPa 😊 | 1.8 GPa 😊 | 2.9 GPa | 2.3 GPa | 😊 | 5.1 GPa 🤪 | 4.1 GPa 🤪 |
| Prep | Drying required | | | | | | | 🔥 | 🔥 | 🔥 | 🔥 |
| | Drying oven | 55°C, 8h | 55°C, 8h | 80°C, 8h | 80°C, 8h | 65°C, 8h | 65°C, 8h | 80°C, 8h | 70°C, 8h | 80°C, 12h | 80°C, 12h |
| | Drying heatbed | 70°C, 12h | 70°C, 12h | 95°C, 12h | 95°C, 12h | 80°C, 12h | 80°C, 12h | 95°C, 12h | 85°C, 12h | 95°C, 12h | 95°C, 12h |
| Printing | AMS compatible | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ⊘ | ⊘ | ✓ |
| | Liquid Glue | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ⊘ | ✓ | ✓ | ⊘ |
| | Abrasive | | ⚙️ | | | | | | | ⚙️ | ⚙️ |
| | Warp | | | ↓ | ↓ | | | ↓ | | | |
| | Max overhang | 55 ° | 55 ° | 70 ° | 70 ° | 70 ° | 70 ° | 70 ° | 70 ° | 70 ° | 70 ° |
| | Layer adhesion | 14 kj/m² | 8 kj/m² ↓ | 7 kj/m² ↓ | 5 kj/m² ↓ | 14 kj/m² | 11 kj/m² | 9 kj/m² ↓ | 27 kj/m² | 5 kj/m² ↓ | 13 kj/m² |
| | Max bridge | 30 mm | 30 mm | 40 mm | 40 mm | 30 mm | 30 mm | 40 mm | 20 mm 🏠 | 30 mm | 40 mm |
| | Nozzle size | All | >=0.4mm | All | All | All | >=0.4mm | All | >=0.4mm | 0.6mm | 0.6mm |
| Build plate | ❄️ | 🔥 | 🔥 | 🔥 | 🔥 | 🔥 | 🔥 | ❄️ | 🔥 | 🔥 | |
| Print speed | 300mm/s 🏠 | 250mm/s | 300mm/s 🏠 | 250mm/s | 200mm/s 🚧 | 200mm/s 🚧 | 300mm/s 🏠 | 80mm/s 🚧 | 100mm/s 🚧 | 100mm/s 🚧 | |
| Tips | | | | | Tips | | | Tips | | Tips | |
| Post process | Annealing | 55~60°C 6~12h | 55~60°C 6~12h | 80~90°C 6~12h | 80~90°C 6~12h | N/A | 65~70°C 6~12h | 85~100°C 6~12h | | 90~130°C 6~12h | 90~130°C 6~12h |

<https://bambulab.com/en-ca/filament-guide>

<https://wiki.bambulab.com/en/general/filament-guide-material-table>

<https://wiki.bambulab.com/en/knowledge-sharing/flowrate-calibration-by-microlidar>

Refer to the "Filament TDS" PDF for each filament for more details (overhang, bridge, etc).

💡 If didn't reboot printer and use the same material as last time → Skip flow calibration and vibration calibration.

💡 If same bed temperature as the last print → Skip bed leveling.