What temperature and how long should you dry PLA?

Asked 3D Content Team
Published October 17, 2026 · Last verified October 17, 2026

Abstract. Dry PLA at 45 to 55 °C (113 to 131 °F) for 6 to 8 hours. Bambu Lab sets 50 °C for 8 hours, Polymaker 55 °C for 6, Prusa 45 °C for 6. Silk and PLA-CF take 55 °C.

Keywords: pla

Table 1. The number

PLA grade and product	Dryer or oven setting	Time	Glass transition	Headroom below it
Basic: Bambu Lab PLA Basic	50 °C (122 °F)	8 h	60 °C (140 °F)	10 °C
Basic: Polymaker PolyLite PLA	55 °C (131 °F)	6 h	61 °C (141.8 °F)	6 °C
Basic: Prusament PLA and rPLA	45 °C (113 °F)	6 h	not listed	not listed
Matte: Bambu Lab PLA Matte	50 °C (122 °F)	8 h	61 °C (141.8 °F)	11 °C
Matte: Polymaker Panchroma Matte	55 °C (131 °F)	6 h	not listed	not listed
Silk: Bambu Lab PLA Silk+	55 °C (131 °F)	8 h	57 °C (134.6 °F)	2 °C
Silk: Polymaker Panchroma Silk	55 °C (131 °F)	6 h	not listed	not listed
Carbon fiber: Bambu Lab PLA-CF	55 °C (131 °F); wiki 50 to 60 °C (122 to 140 °F)	8 h	63 °C (145.4 °F)	8 °C; 3 °C at 60 °C
Carbon fiber: Polymaker PolyLite PLA-CF	55 °C (131 °F)	6 h	62 °C (143.6 °F)	7 °C
PLA+: eSUN PLA+	50 °C (122 °F)	8 to 12 h	N/A on the sheet	not listed

1 What temperature and how long should you dry PLA?

Dry PLA (polylactic acid) at 45 to 55 °C (113 to 131 °F) for 6 to 8 hours. Bambu Lab sets 50 °C for 8 hours, Polymaker 55 °C for 6 hours and Prusa 45 °C for 6 hours. Silk and carbon-fiber grades take 55 °C, below the 57 to 63 °C glass transitions on PLA data sheets.

1.1 The number

Bambu Lab's figures are forced-air oven settings from its data sheets and its drying wiki, which widens PLA-CF to 50 to 60 °C. Prusament's come from the Prusa Knowledge Base, and Polymaker's and eSUN's from their data sheets. Glass transitions are each sheet's DSC (differential scanning calorimetry) value. Fahrenheit is °C × 9/5 + 32.

1.2 Why

PLA takes up little water: Bambu Lab's PLA Basic sheet gives 0.43 percent at saturation, at 25 °C and 55 percent relative humidity (RH). That water still flashes to steam in the hot nozzle, which Bambu blames for bubbles and stringing.

Heat drives the water out, and the glass transition sets the ceiling. There PLA turns from rigid to soft, and coils pressed together on the spool stick. Prusa warns that exceeding its temperatures makes filament "soften and stick together." Bambu keeps PLA out of the static drying mode on the Bambu Lab AMS 2 Pro and AMS HT because the layers "may stick together or deform."

1.3 How long should you dry PLA?

Six hours at 55 °C for Polymaker PLA or 45 °C for Prusament, and 8 hours at 50 °C for Bambu Lab PLA Basic and Matte. eSUN PLA+ takes 8 to 12 hours at 50 °C. The AMS 2 Pro and AMS HT run cooler and longer: 45 °C for 12 hours. Going past the listed time doesn't help: Prusa asks you to keep to its times "to prevent overdrying."

1.4 Is 50 °C right for drying PLA?

Yes, for Bambu Lab PLA Basic, PLA Matte and eSUN PLA+. It's each maker's own setting, 10 °C under PLA Basic's glass transition. Two exceptions:

- **Prusament on an old black spool.** Prusa sets 45 °C and says not to exceed it. The old black spool loosens above 45 °C unless a screw with at least 65 mm of thread joins its sides. Spools made since October 2025 take 90 °C.
- **A kitchen oven.** Prusa says home-oven swings can damage PLA. Bambu rules out kitchen ovens and microwaves: spots near the heating elements overheat.

1.5 What temperature dries PLA in Fahrenheit?

Set 113 °F (45 °C) for Prusament and 122 °F (50 °C) for Bambu Lab PLA Basic, PLA Matte and eSUN PLA+. Polymaker PLA and Bambu's Silk+ and PLA-CF take 131 °F (55 °C). The ceiling, PLA Basic's glass transition, is 140 °F.

1.6 How do you dry silk PLA?

At 55 °C (131 °F): 8 hours for Bambu Lab PLA Silk+, 6 hours for Polymaker Panchroma Silk. Silk has the least headroom.

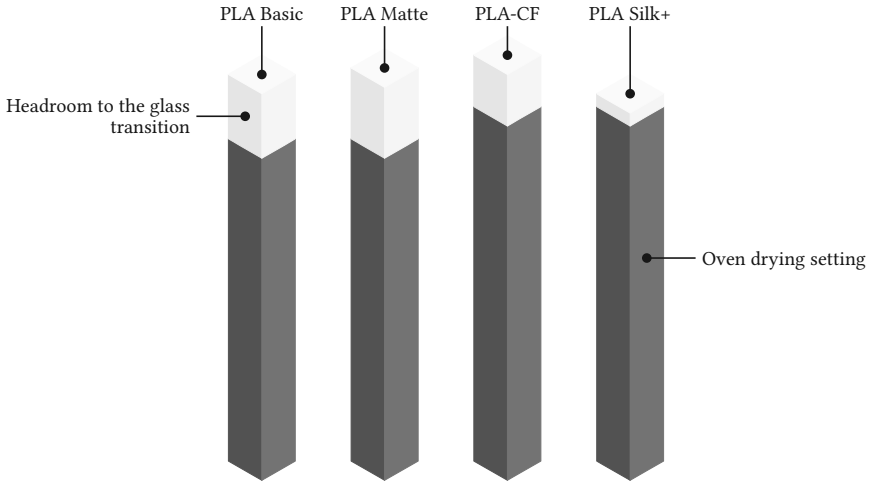


Figure 1. Each column is drawn to scale, with the grade's oven setting in the dark part and the headroom left below its glass transition in the pale top, smallest on PLA Silk+.

Silk+ reaches its 57 °C glass transition just 2 °C above that setting, so put a thermometer at the spool before you trust the readout.

1.7 How do you dry PLA-CF filament?

At 55 °C (131 °F): 8 hours on Bambu Lab's PLA-CF sheet, 6 hours on Polymaker's PolyLite PLA-CF sheet. Bambu's wiki allows 50 to 60 °C, still under the 63 °C and 62 °C glass transitions the two sheets list. Bambu calls drying PLA-CF recommended, not required. But its clog guide calls carbon- and glass-filled materials "especially sensitive and prone to warping or clogging when damp."

1.8 What are Bambu Lab's PLA drying settings?

Bambu Lab's forced-air oven settings all run 8 hours. PLA Basic and Matte take 50 °C (122 °F), Silk 55 °C (131 °F), and PLA-CF and glass-filled PLA-GF 50 to 60 °C. PLA Wood, the one PLA Bambu says must be dried, takes 55 to 65 °C (131 to 149 °F).

In the AMS 2 Pro and AMS HT, every PLA dries at 45 °C (113 °F) for 12 hours, the temperature the AMS also holds while printing. Use rotation mode, not static. Take PLA out before drying a hotter filament such as ABS (acrylonitrile butadiene styrene) in the same unit. For the printer's bed, see the heated-bed drying table.

1.9 How to check it on your own print

- **Measure the temperature at the spool.** Prusa recommends an external thermometer for a home oven.
- **Check the spool.** Bambu Lab's spools for these grades are ABS rated to 70 °C. Bambu warns some third-party spools can deform.
- **Give the oven room.** Bambu asks for an oven at least 250 mm deep, 250 mm wide and 90 mm high inside for one spool. Keep the spool away from the heating elements.
- **Feel the coils afterwards.** Tacky or fused turns mean it ran too hot. Use 45 °C next time.
- **Seal it straight away.** At about 55 percent RH, Bambu says dried filament absorbs enough moisture to hurt print quality within 2 to 12 hours. Store it below 20 percent RH with desiccant.
- **Print a test piece.** If it still strings after a full cycle, look past moisture: Prusa notes some filaments string more than others by nature.

References

[1] Filament Drying Recommendations, Bambu Lab Wiki. https://wiki.bambulab.com/en/filament-acc/filament/dry-filament. Accessed October 17, 2026.
[2] Bambu Filament Technical Data Sheet V3.0, PLA Basic. https://wiki.bambulab.com/filament-acc/abs-asa-pc/bambu_pla_basic_technical_data_sheet.pdf. Accessed October 17, 2026.
[3] Bambu Filament Technical Data Sheet V3.0, PLA Matte. https://store.bblcdn.com/s7/default/5b061f2feeac4ba88f355a33248bbda7/Bambu_PLA_Matte_Technical_Data_Sheet.pdf. Accessed October 17, 2026.
[4] Bambu Filament Technical Data Sheet V1.0, PLA Silk+. https://cdn.shopify.com/s/files/1/0584/7236/6216/files/Bambu_PLA_Silk__Technical_Data_Sheet.pdf. Accessed October 17, 2026.
[5] Bambu Filament Technical Data Sheet V2.0, PLA-CF. https://store.bblcdn.com/842f399d4e274507953a5231126ec8c1.pdf. Accessed October 17, 2026.
[6] How to Avoid Nozzle Clogs, Bambu Lab Wiki. https://wiki.bambulab.com/en/knowledge-sharing/how_to_avoid_nozzle_clogs. Accessed October 17, 2026.
[7] Drying filament, Prusa Knowledge Base. https://help.prusa3d.com/article/drying-filament_332086. Accessed October 17, 2026.
[8] PolyLite PLA Technical Data Sheet, Polymaker Wiki. https://wiki.polymaker.com/polymaker-products/more-about-our-products/documents/technical-data-sheets/pla/polylite-tm-pla. Accessed October 17, 2026.
[9] PolyLite PLA-CF Technical Data Sheet, Polymaker Wiki. https://wiki.polymaker.com/polymaker-products/more-about-our-

products/documents/technical-data-sheets/pla/pla-cf. Accessed October 17, 2026.
[10] Panchroma PLA Product Data Sheet V2.1, Polymaker. https://cdn.shopify.com/s/files/1/0548/7299/7945/files/TDS_PANCHROMA_V2.pdf. Accessed October 17, 2026.
[11] PLA+ Technical Data Sheet, Version 1.0 (February 2026), eSUN. https://www.esun3d.com/media/esun/catalog/certification/product/PLA_3KG1.75MM/PLA_-TDS-en.pdf. Accessed October 17, 2026.

Cite as: Asked 3D. "What temperature and how long should you dry PLA?." October 17, 2026. https://asked3d.com/answers/pla-drying-temperature. Last verified October 17, 2026.