Bed temperature chart: what bed temperature does each filament need?

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Abstract. Bambu Lab sets PLA at 45 to 65 °C on PEI, PETG 60 to 80 °C, ABS and ASA 90 to 100 °C, PC and nylon 100 to 120 °C. Fiber-filled grades match their base plastic.

Keywords: build-plates, bed-adhesion, slicer-settings, warping

1 What bed temperature does each filament need?

Bambu Lab's chart sets PLA at 45 to 65 °C on PEI (35 to 45 °C on a cool plate), PETG 60 to 80 °C, TPU 35 to 45 °C, ABS and ASA 90 to 100 °C, and PC and nylon 100 to 120 °C. Prusa lands within 10 °C of those, except TPU at 60 to 75 °C.

1.1 The number

The Bambu Lab columns come from its wiki filament guide, which covers every Bambu plate. The Prusa columns come from the Prusa Knowledge Base page for each material, with the fiber-filled rows and TPU 95A taken from the comparison table in Prusa Research's November 2025 Prusament portfolio. The 40 to 120 °C composite figure is from Prusa's Filament Material Guide.

Bambu's own product data sheets run narrower than its wiki. The PLA Basic sheet gives 35 to 45 °C, PETG Basic and PETG-CF give 65 to 75 °C, and ABS gives 80 to 100 °C.

Table 1. The number

Filament	Bambu Lab bed range	Bambu plates	Prusa setting	Prusa sheet
PLA (polylactic acid)	35 to 45 °C on the Cool Plate; 45 to 65 °C on the others	Cool Plate, Engineering (glue required), Smooth PEI (polyetherimide), Textured PEI	60 °C	Satin or smooth PEI
PETG (glycol-modified polyethylene terephthalate)	60 to 80 °C	Engineering, Smooth PEI, Textured PEI; not the Cool Plate	85 °C first layer, 90 °C after	Textured or satin; glue stick on smooth PEI
TPU (thermoplastic polyurethane)	30 to 35 °C on Engineering; 35 to 45 °C on PEI	Engineering, Smooth PEI, Textured PEI; not the Cool Plate	60 to 75 °C; Prusament TPU 95A 65 °C	Textured; glue stick or Kapton on smooth or satin
ABS (acrylonitrile butadiene styrene)	90 to 100 °C	Engineering, Smooth PEI, Textured PEI	100 °C, or 80 to 110 °C by part size	Smooth or textured PEI with glue stick
ASA (acrylonitrile styrene acrylate)	90 to 100 °C	Engineering, Smooth PEI, Textured PEI	105 °C first layer, 110 °C after	Smooth or textured PEI with glue stick
PC (polycarbonate)	100 to 120 °C	Engineering, Smooth PEI, Textured PEI; glue stick, not liquid glue	110 °C first layer, 115 °C after	Textured or satin with glue stick; not smooth PEI
Nylon (PA, polyamide)	100 to 120 °C (90 to 110 °C in the same page's glue table)	Engineering, Smooth PEI, Textured PEI; glue stick	110 °C	PA Nylon sheet
PLA-CF (carbon fiber)	45 to 65 °C	All four, Cool Plate included	No Prusament grade; 40 to 120 °C for all composites	Not listed
PETG-CF	60 to 80 °C	Engineering, Smooth PEI, Textured PEI	Prusament PETG Carbon Fiber: 85 °C first layer, 90 °C after	Textured, or smooth PEI with glue stick
PC-CF	Not listed separately	Not listed	Prusament PC Blend Carbon Fiber: 110 °C first layer, 115 °C after	Textured, or smooth PEI with glue stick
PA-CF, PA-GF, PAHT-CF (carbon- or glass-fiber nylon)	100 to 120 °C	Engineering, Smooth PEI, Textured PEI; glue stick	Prusament PA11 Carbon Fiber: 90 °C first layer, 115 °C after	PA Nylon sheet, or textured or satin with glue stick; not smooth PEI
PET-CF, PET-GF (fiber-filled PET)	80 to 120 °C on Engineering; 100 to 120 °C on PEI	Engineering, Smooth PEI, Textured PEI; glue stick	No Prusament grade	Not listed

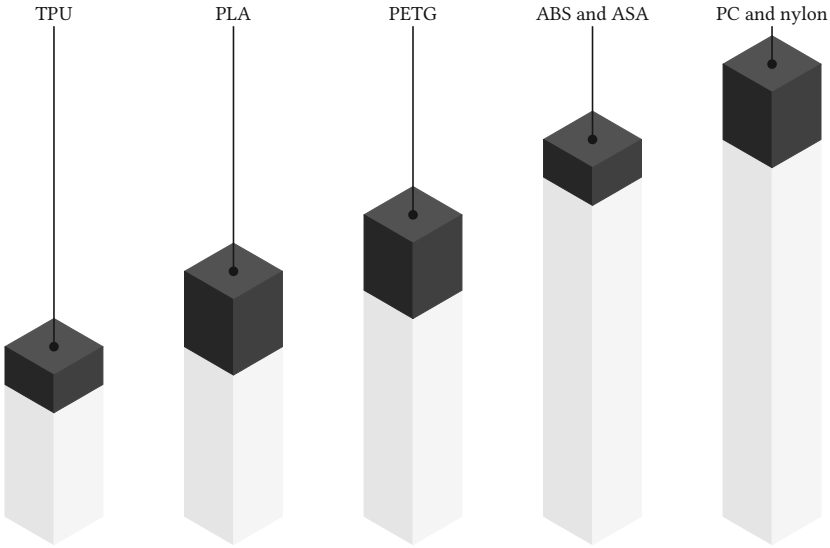


Figure 1. Each dark band spans the bed range Bambu Lab's filament guide gives on its PEI plates, drawn to scale from zero.

1.2 What temperature should a heated bed be for engineering filaments?

ABS, ASA, PC and nylon need 80 to 120 °C, the hottest beds on the chart. Bambu says they and their fiber-filled grades "require higher heatbed and chamber temperatures to suppress warping." It recommends an enclosed printer for all of them.

Prusa says ABS needs at least 100 °C inside an enclosure. It also scales the bed with the part, from 80 to 110 °C for ABS, with larger objects at the higher end. Chamber air is the other half of the job; see ABS chamber temperature.

Check that your printer can hold the number before you buy the spool. Prusa warns that when the room drops below 18 °C, a printer running PC may fail to hold its bed temperature and stop with a "Bed thermal runaway" error. The limits by printer are on the heated bed maximum temperature page.

1.3 Do fiber-filled filaments need a different bed temperature?

Mostly not. Bambu puts PLA-CF, PETG-CF and PA-CF in the same range as plain PLA, PETG and nylon. Prusament PETG Carbon Fiber and PC Blend Carbon Fiber use the same bed settings as their unfilled grades. Two things change:

- **Plates.** PLA-CF is listed on Bambu's Cool Plate at 45 to 65 °C, the same as on PEI, while plain PLA is held to 35 to 45 °C there. Bambu specifies its glue stick for PA6-CF/GF, PAHT-CF and PET-CF.
- **Warping.** Prusa notes that PC Blend Carbon Fiber can print large models without an enclosure, unlike plain PC Blend. Prusament PA11 Carbon Fiber starts the first layer at 90 °C and only then rises to 115 °C.

1.4 Why each filament needs its own number

The bed keeps the bottom layers warm so they don't shrink and peel off the plate as they cool. Bambu's ranges sit close to each plastic's softening point. PLA Basic has a 60 °C glass transition against its 45 to 65 °C bed range, and PETG Basic has 69 °C against 60 to 80 °C. ABS runs its 90 to 100 °C bed above its 84 °C heat deflection temperature.

Heat has limits too. Prusa describes elephant foot: the first layer is squished against the heated bed and ends up wider than designed. On an enclosed printer, a hot bed also warms the chamber air. Bambu advises opening the door or lifting the top glass when PLA or TPU runs a bed above 45 °C, or PETG above 60 °C (70 °C in its plate table). Otherwise the filament can soften in the extruder and clog.

1.5 How to check it on your own print

- **Find the plate row first.** Look up your build plate, not just your filament. PETG and PC can bond hard enough to damage smooth PEI, which is why Prusa asks for a glue stick as a separator there. Bambu marks its Cool Plate not recommended for PETG, ABS and every hotter plastic.
- **Start mid-range, then move with the part.** Set the middle of the range in your slicer's filament profile. Move toward the top of the range for large footprints that lift at the corners, the adjustment Prusa makes for ABS and TPU. Corner lift has its own fixes on the warping page.
- **Read the bottom edge.** A flared first layer is elephant foot. Set elephant foot compensation in your slicer, and try the low end of the range.
- **Use the first-layer split.** Prusa runs the first layer 5 °C cooler than the rest for PETG, ASA and PC. Prusament PA11 Carbon Fiber runs it 25 °C cooler.

- **Vent the chamber for low-temperature plastics.** When a PLA, TPU or PETG bed passes Bambu's limits in the section above, open the door or lift the top glass.
- **Let it cool before removal.** Bambu says to wait until the plate and the part have fully cooled, then flex the plate. The release step is covered in bed temperature to remove a print.

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