OrcaSlicer Bed Types, Decoded

Six options. Their names do not describe their surfaces. Row labels below are the exact strings OrcaSlicer shows.

Dropdown option	What it physically is	Best for	Max plate temp	Watch out for
Smooth Cool Plate	Low-temperature coated sheet, glossy finish	PLA at low bed temps; glossy first layers	—	Wants a thin glue-stick coat every 2–3 prints. Let it cool fully before removing the part.
Textured Cool Plate	The same coated sheet, textured finish	PLA at low bed temps; matte first layers	—	Chemically identical to the Smooth Cool Plate — the only difference is surface texture. Same temps, same glue habit.
Cool Plate (SuperTack)	High-grip low-temperature surface	PLA and PETG with no glue at all	—	Never clean with IPA — warm water and detergent only. Scratches more easily than textured PEI.
Smooth High Temp Plate	This is the smooth PEI plate	Glossy first layers on a bare PEI surface	120 °C	The naming trap: nothing in this option says PEI. If you run a smooth PEI sheet, this is your setting.
Textured PEI Plate	Powder-coated PEI on spring steel	The all-rounder — widest material list of the six	180 °C	Never clean with acetone; it is a consumable. Sources disagree on whether PETG needs glue here.
Engineering Plate	High-temperature engineering surface	ABS, ASA, PC, PA, PA-CF, PETG	120 °C+	Wants an enclosure for reliable results. Glue stick for PC and nylon. Wears faster than the PEI plates.

The one most people get wrong. Only one option contains the letters PEI, and it is the textured one. If your printer has a smooth PEI sheet — the most common plate there is — you need **Smooth High Temp Plate**. Nothing in that name says so, which is why the dropdown so often stays on whatever the profile shipped with.

Pick yours in ten seconds

Look at the plate on your printer right now	Select	Why
Glossy, mirror-like, smooth to the touch	**Smooth High Temp Plate**	The only smooth PEI option, despite the name
Gritty, matte, powder-coated feel	**Textured PEI Plate**	The one option that actually says PEI
Came with the printer, guidance says PLA only	**Smooth / Textured Cool Plate**	Same coated surface — match the finish
Marked SuperTack	**Cool Plate (SuperTack)**	Its own high-grip surface — no glue needed
Bought specifically for ABS, ASA, PC or nylon	**Engineering Plate**	Built for sustained high bed temperatures

The rule: pick the plate that is physically on your printer right now — not the one the printer profile shipped with.

Bed Temperature by Material

Three published sources, side by side. They do not agree — and that disagreement is the most useful thing on this page.

Material	Bambu spec (Textured PEI Plate)	OrcaSlicer wiki (general)	Kingroon (smooth PEI)	Reading the row
PLA	45–60 °C	50–60 °C	70 °C	A 25 °C spread on the most common filament in the hobby. Start at 55–60 and adjust by result, not by chart.
PETG	60–80 °C	not listed	70 °C (textured)	OrcaSlicer's own material table omits PETG entirely. Bambu says no adhesive needed on textured PEI; other guides say use a glue stick.
ABS	90–100 °C	90–100 °C	—	The one row where the sources agree outright. Enclosure matters more than the last five degrees.
ASA	90–100 °C	90–100 °C	—	Same as ABS in every source checked.
TPU	35–45 °C	40–60 °C	—	Bambu lists TPU as needing adhesive on textured PEI. The ranges barely overlap — start low.
PC	90–110 °C	100–120 °C	—	Bambu lists PC as needing adhesive. Both ranges exceed the smooth PEI plate's 120 °C ceiling at the top end.
PA / Nylon	90–110 °C	90–110 °C	—	Agreement on temperature. Bambu lists nylon as needing adhesive.
PET-CF	80–100 °C	—	—	Single-sourced.
PVA	45–60 °C	—	—	Single-sourced.
PC-ABS	—	95–110 °C	—	Single-sourced.
HIPS	—	90–110 °C	—	Single-sourced.
PP	—	80–105 °C	—	Polypropylene adheres best to a polypropylene surface, not to PEI.
Acetal (POM)	—	100–130 °C	—	Exceeds the smooth PEI plate ceiling. Engineering plate territory.

Why the columns disagree. Bambu's figures are a manufacturer spec for one specific plate. The OrcaSlicer wiki gives general per-material ranges independent of plate. Kingroon's are a retailer's general guidance. None of them know your printer, your enclosure, or your filament batch. Use the spread as a sanity check on your own numbers, not as a target.

Changing It, and Why It Matters

The setting is not a label

Bed type does not just annotate your project. Each filament profile stores a **separate bed temperature per plate type**, with independent values for the first layer and all other layers, and the dropdown decides which pair gets written into your G-code. Change the bed type, re-slice, and the M140/M190 value in the file changes with it — so picking the wrong plate silently prints your first layer at a temperature you never chose. This depends on **Support multi bed types** being enabled in Printer Settings; with it off, the per-plate fields are not in play.

Where to find it

Slicer	Notes
OrcaSlicer	Bed type selector on the Prepare tab, near the plate. Per-plate temperatures live in Filament Settings once **Support multi bed types** is on in Printer Settings.
Elegoo Slicer	Elegoo Slicer is an OrcaSlicer fork — same control, same place, same behaviour.
Creality Slicer	Also Orca-derived. Adds an **Epoxy Resin Plate** option that upstream OrcaSlicer does not have, for its double-sided epoxy-coated sheet (PLA, ABS, ASA, PETG, TPU, PA). The manufacturer publishes no temperature figures for it.
Plate not listed?	For an aftermarket sheet, pick the option whose surface and temperature range matches your plate, then set your bed temperature by test rather than trusting the preset.

Sources

Source	What it supplied, and how much weight to give it
OrcaSlicer wiki — material temperatures	Per-material bed temps; multi bed types; per-plate first/other layer fields. **Highest weight — the slicer's own documentation.**
Bambu Lab Textured PEI Plate specification	Per-material bed temps, 180 °C ceiling, per-material adhesive requirements. High weight; manufacturer spec, retrieved via a reseller listing.
Bambu Lab wiki — printing on Cool Plate	Glue-stick cadence and cool-before-removal guidance. No temperature figures given. Manufacturer, but thin.
3dbite — build plates guide	Per-plate maximum temperatures, SuperTack figures, engineering plate guidance. Independent guide — treat as a lead, not a spec.
All3DP — choosing a build plate	Material compatibility by plate and over-adhesion warnings. Publishes no temperature figures at all. Directional only.
Kingroon — choosing a build plate	PLA at 70 °C on smooth PEI. Retailer guidance, and the outlier in the PLA row.

How to use this sheet. Every number here is a published figure from the sources above — none of it is a Minimal 3DP test result, and nothing has been measured on your printer. Treat it as the starting point you argue with: print a first-layer patch, look at it, write your own number in the margin.

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