

Public printing recommendation

BambuLab Basic PA12 PAHT CF Black



3DP Iceland Labs

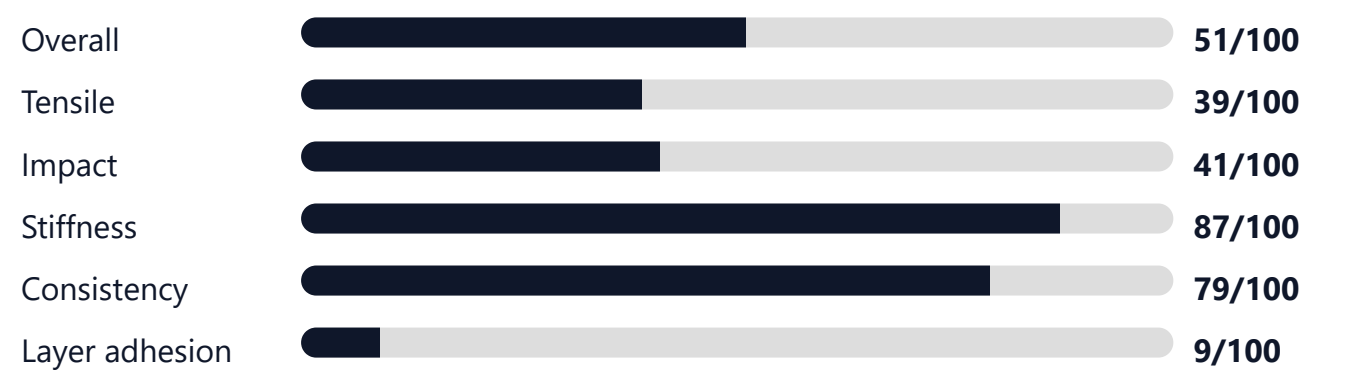
MaterialID MAT0167

3DPiceland Labs
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WORKFLOW-RELIABILITY - Bug Fixes and Workflow Reliability
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Guidance boundary: values below are shared base-material guidance resolved only through the canonical BaseMaterialId link. They are not manufacturer-, spool- or printer-specific validated settings. Missing fields remain Not recorded.

Overall 51/100	Engineering axes 6/5	Public rank 77 / 234	MSRP USD/kg 159.84
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Engineering profile



Recommended applications

- Rigid brackets, fixtures and shape-stable prototypes
- Repeatable print jobs and production-style batches
- Cosmetic parts, concept models or low-load prototypes

Measured strengths

- Consistency: 79/100. Repeatability is one of the stronger signals in this material profile.
- Tensile: 39/100. Tensile behavior is competitive against the material-family context.
- Stiffness: 87/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Tensile: 39/100. Avoid using this as the primary choice for tensile-loaded parts.
- Layer adhesion: 9/100. Z-axis performance should be treated with caution.

Engineering trade-offs

- Good repeatability does not compensate for low tensile capability in load-bearing designs.
- Stiffness is useful for shape stability, but impact tolerance is a separate limitation.

Base-material printing guidance

Guidance	Minimum	Recommended	Maximum	Unit
Nozzle temperature	260	265	270	°C
Bed temperature	105	110	110	°C
Print speed	11	65	65	mm/s
Cooling	10	10	15	%
Guidance	Value			Unit
Cooling guidance	Low			
Drying temperature	80			°C
Drying time	12			hours
Enclosure	Required			
Printer / G-code reference	PrusaCoreOneL			
Slicer profile reference	Fiberlogy Nylon PA12			

Print workflow checks

- Confirm nozzle temperature, bed temperature, speed, cooling and drying requirements from the manufacturer profile or spool label.
- Print a small validation part before committing to a long, costly or safety-relevant print.
- Orient the part so the governing load does not rely on an unverified or weak engineering axis.
- Reinforced filament: confirm an abrasion-resistant nozzle and manufacturer drying/storage requirements.
- Engineering/high-temperature family: confirm enclosure, ventilation, warping control and material-specific drying requirements.
- Layer-adhesion evidence is weak; avoid critical Z-axis loading without additional validation.

Decision guidance

- Use this material for moderate requirements after checking the weakest axis.

Stronger same-family alternatives

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
Confirm exact settings against the manufacturer profile, spool label and actual printer/material combination. Results do not replace application-specific validation.					

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