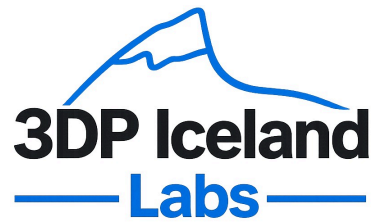


Public printing recommendation

Thorwell Standard Carbon Fiber-T PETG CF Black

MaterialID MAT0151



3DP Iceland Labs

Generated with 3DP Iceland Engineering Platform v60.0.6

WORKFLOW-RELIABILITY - Bug Fixes and Workflow

Reliability

2026-08-25 19:05:46

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
36/100

Engineering axes
6/5

Public rank
225 / 234

MSRP USD/kg
40.00

Engineering profile



Recommended applications

- Rigid brackets, fixtures and shape-stable prototypes
- Cosmetic parts, concept models or low-load prototypes
- Avoid high tensile load applications
- Avoid high impact components

Measured strengths

- Stiffness: 70/100. Stiffness is a relative advantage in this comparison group.

Limitations

- Tensile: 15/100. Avoid using this as the primary choice for tensile-loaded parts.
- Impact: 14/100. Avoid high impact or shock-loaded components without additional validation.
- Layer adhesion: 13/100. 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.
- The report should be read as a suitability warning rather than a general-purpose recommendation.

Base-material printing guidance

Guidance	Minimum	Recommended	Maximum	Unit
Nozzle temperature	230	250	260	°C
Bed temperature	75	85	85	°C
Print speed	55	130	130	mm/s
Cooling	30	60	75	%
Guidance	Value		Unit	
Cooling guidance	Moderate			
Drying temperature	65		°C	
Drying time	6		hours	
Enclosure	Not required			
Printer / G-code reference	PrusaCoreOneL			
Slicer profile reference	Prusament PETG			

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.
- Layer-adhesion evidence is weak; avoid critical Z-axis loading without additional validation.

Decision guidance

- Use this material mainly for low-load, visual or experimental parts.
- Review the listed alternatives if the application needs stronger overall performance.
- Do not choose it as a tensile-strength benchmark material.
- Avoid selecting it for impact-focused testing or shock-loaded designs.

Stronger same-family alternatives

MaterialID	Material	Manufacturer	Overall	Tensile	Impact
MAT0236	Yasin Standard Black PETG CF Black	Yasin	50/100	30/100	20/100
MAT0198	Siraya Tech Fiberheart Black PETG Pro CF Black	Siraya Tech	49/100	33/100	19/100
MAT0060	ColorFabb XT PETG Pink	ColorFabb	48/100	—	—

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

[Testing methodology](#) · [Download PDF](#)

reports/printing-recommendations/MAT0151/