

PETG-CF printing

3DP-028 / REV A / 2026.09.01

Carbon-fiber-filled PETG offers a matte finish and typically greater stiffness than the corresponding unfilled PETG. It is useful for housings, brackets, equipment mounts, and dimensionally stable prototypes. Increased stiffness does not automatically mean greater impact strength or stronger layer bonding. Dry to the product's specification and store sealed. Orient loaded features so the principal load runs along deposited roads where practical rather than pulling layers apart. Increase wall thickness where fasteners load the part. Use the product's actual density when estimating spool consumption and weight.

STATUS	Recovered/Partial
CLASSIFICATION	3DP
MATERIAL	3D PRINT / MAKER
DISPOSITION	PUBLIC / RECOVERED/PARTIAL
CATEGORY	3D Printing
RECORD TYPE	project

TECHNICAL NOTES

Carbon-fiber-filled PETG offers a matte finish and typically greater stiffness than the corresponding unfilled PETG. It is useful for housings, brackets, equipment mounts, and dimensionally stable prototypes. Increased stiffness does not automatically mean greater impact strength or stronger layer bonding.

GOAL

Run the first test described in this guide and record the result for petg-cf printing.

SOURCE STATE

Starting profile-awaiting Robert's retest

SETTINGS / STARTING POINT

NOZZLE	Wear-resistant 0.6 preferred if available; 0.4 only if the product permits
LAYER HEIGHT	0.24 with 0.6 nozzle; 0.20 with approved 0.4 nozzle
NOZZLE TEMPERATURE	255; tune within the product range

BED	70-80
OUTER WALL / OTHER EXTRUSION	30-40 / 40-60
FIRST LAYER	20
PART COOLING	0% initially, then 20-40%
WALLS / INFILL	4 walls, 25-40% gyroid as a functional-part starting point
ENCLOSURE	Product- and ambient-dependent; avoid cold drafts

PREPARATION / NOTES

Dry to the product's specification and store sealed. Orient loaded features so the principal load runs along deposited roads where practical rather than pulling layers apart. Increase wall thickness where fasteners load the part. Use the product's actual density when estimating spool consumption and weight.

EQUIPMENT

- FDM printer / slicer
- Slicer project
- Calipers or inspection method

MATERIALS

- PETG-CF

METHOD / STEPS

1. Confirm printer, nozzle, plate, and material identity.
2. Start from the recorded profile or the slicer default for that material.
3. Print a small first-layer and geometry test before the full part.
4. Inspect adhesion, dimensions, surface, supports, and failure mode.
5. Save the successful project with temperatures, speeds, and revision notes.

THINGS TO WATCH FOR

Fibers abrade nozzles and may clog small openings. A good-looking matte surface can hide poor bonding. Stringing and rough extrusion can still be moisture-related. Do not assume every automatic filament feeder supports abrasive filament. Contain dust during sanding or drilling.

FIRST TEST / WHAT TO RECORD

Print a small bracket and hole-fit coupon; inspect layer bonding and fastener fit before producing the full part.

RESULT / WHERE THIS STANDS

Print a small bracket and hole-fit coupon; inspect layer bonding and fastener fit before producing the full part.

TROUBLESHOOTING

- Fibers abrade nozzles and may clog small openings. A good-looking matte surface can hide poor bonding. Stringing and rough extrusion can still be moisture-related. Do not assume every automatic filament feeder supports abrasive filament. Contain dust during sanding or drilling.

SPECIFICATION

NOZZLE	Wear-resistant 0.6 preferred if available; 0.4 only if the product permits
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DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

REFERENCE NOTES

Bambu PETG-CF guide (<https://bambulab.com/en-us/filament/petg-cf>) provides a product example of 240-270°C extrusion and 0-40% part cooling; it does not verify Robert's spool or FlashForge profile.

HOW-TO SOURCES

Bambu PETG-CF guide

<https://bambulab.com/en-us/filament/petg-cf>

RELEASED MATERIAL / SOURCE LINKS

3dp-028-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/3dp-028-public-summary.txt>

RETURN TO THE LIVING RECORD

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This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/3DP-028>