

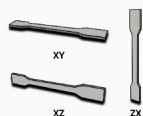
DESCRIPTION

PETG CF is a carbon-fiber-filled PETG. The carbon fibres make the material strong and lightweight, suited to industrial applications, automotive parts, robotics and machine components. Because it is abrasive, we recommend a hardened, abrasion-resistant nozzle.

KEY BENEFITS

- Carbon-fiber filled
- Strong & lightweight
- PETG-based
- Functional parts
- Hardened nozzle required

MECHANICAL PROPERTIES



BUILD ORIENTATION KEY

Each tensile bar was printed flat (XY), on its side (XZ) or upright (ZX). The columns below report each build orientation's measured values —ZX (across layers) is the weakest axis.

PROPERTY	STANDARD	XY	XZ	ZX	UNIT
Tensile strength	ISO 527-2	33.1	41.1	19.4	MPa
Yield strength	ISO 527-2	25.0	28.1	18.1	MPa
Tensile modulus	ISO 527-2	2100	2600	1600	MPa
Strain at yield	ISO 527-2	6.8	4.4	1.6	%
Flexural strength	ISO 178	68.8	84.2	41.3	MPa
Flexural modulus	ISO 178	4300	6200	3100	MPa
TEST SPECIMENS Printer Bambu Lab H2S Nozzle 0.4 mm Line width 0.42 mm Layer height 0.15 mm First layer 0.28 mm Walls 2 Top / bottom layers 5 / 3 Infill 100% rectilinear Nozzle temp. 250 °C Bed temp. 60 °C Print speed 50 mm/s					

PRINTING RECOMMENDATIONS

Printing temp.	250 °C	Bed temp.	60 °C
Chamber temp.	40 °C	Max printing speed	≤100 mm/s
Retraction	0.8 mm		

HANDLING, STORAGE & THERMAL

Max flow rate	8 mm³/s	Heat deflection temp.	68 °C
Vicat softening temp.	85 °C	Glass transition temp.	80 °C
Drying temp.	60 °C	Drying time	8 h
Enclosed printer	Optional	Multi-material compatibility	Not recommended

TIPS & TRICKS

- Use a hardened steel nozzle**
A 0.6 mm hardened steel nozzle is recommended for abrasive carbon fiber fill.
- 0.2 mm nozzles are not supported**
Fiber fill can clog small nozzles.
- Not recommended for AMS/CFS-type systems**
Abrasive filled filaments are risky in long multi-material paths.
- Dry thoroughly before printing**
Dry at 60 °C for 8 h and store sealed.
- Print in a well-ventilated area**
Use ventilation for filled materials and long prints.
- Recommended print speed**
Use <100 mm/s for normal H2S-style generic PETG-CF printing.

The technical information on this sheet may be revised as new data becomes available. Verify suitability for your own application before use. AzureFilm d.o.o makes no warranties and assumes no liability for any use of this information. The user assumes all responsibility for the use of all information provided and shall verify quality and other properties, or any consequence, arising from the use of such information. Typical values are indicative only and are not to be construed as binding specifications. AzureFilm d.o.o. shall not be held liable for any damage, injury or loss arising from the use of AzureFilm materials in any particular application.