

CARBON-P

CARBON-P is our 15% carbon fiber reinforced PET-G based filament. The result is a more than twice as stiff filament as PET-G with increased impact and heat resistance (Vicat) to 75°C. This, together with other features, such as a matt surface, no warp, dimensionally stable and extremely forgiving to print, makes CARBON-P suitable for a very wide variety of applications besides the typically mentioned RC parts, drones, automotive and more

Material features:

- 15% Carbon fiber reinforced PET-G
- Extremely stiff
- Increased impact and heat resistance
- No warping and dimensionally stable
- Matt surface
- Abrasive (see * at additional info*)

Colours:

CARBON-P is available from stock in it's natural dark grey. Other colours on request.

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Packaging:

CARBON-P is available in nearly any type of packaging and labelling. Ask our team to help you customizing your product.

Filament specs.

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,31 g/cc
MFR 200°C/5 kg	ISO 1133	3,8 g/10min
Tensile Strength at Yield	ISO 527	101 MPa
Tensile Strength at Break	ISO 527	100 MPa
Elongation-Strain at Yield	ISO 527	2,7%
Elongation-Strain at Break	ISO 527	3,7%
Tensile modulus	ISO 527	9930 MPa
Impact strength - Charpy notched 23°C	ISO 179	7 kJ/m2
Printing temp.	Internal method	240±10°C
Vicat softening temperature	ISO 306	75°C
Heat deflection temperature	ISO 306	78,6°C

Additional info:

We recommend to print with a heated bed, the recommend temperature is ≥60°C.

*Please consider the use of a hardened steel nozzle when printing with CARBON-P . The carbon fibers are abrasive and will result in fast wear of regular brass nozzles. Less active cooling is required, which leads to less thermal shock in a print and increased material stability. CARBON-P can be used on all common desktop FDM or FFF technology 3D printers.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.

