



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.

na1

Packaging:

CARBON-P is available in 500g

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 |
| MFI 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 (E) modulus | ISO 527 | 9930 MPa |
| Impact strength - Charpy notched 23°C | ISO 179 1eA | 7 kJ/m2 |
| Printing temp. | Internal method | 240±10°C |
| Vicat softening temp. | ISO 306 | 75°C |
| Heat deflection temp. | ISO 75 | 78,6°C |

Additional info:

We recommend to print with a heated bed, the recommend temperature is 70-90°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.