



## CARBON-P @df

CARBON-P @df is our 20% carbon fiber reinforced PET-G based filament. The result is a twice as stiff filament as PET-G @df with increased impact and heat resistance (HDT) to 80°C. This, together with other features, such as a matt surface, no warp, dimensionally stable and extremely forgiving to print, makes CARBON-P @df suitable for a very wide variety of applications besides the typically mentioned RC parts, drones, automotive and more.

### Features:

- 20% Carbon fiber reinforced PET-G
- Extremely stiff
- Increased impact and heat resistance
- No warping and dimensionally stable
- Matt surface
- Abrasive (see \* at additional info\*)



### Dimensions

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

### Physical properties

Description	Testmethod	Typical value
Specific gravity	ASTM D792	1,19 g/cc
MFI (300°C -1,2kg)	ISO 1133	N.D.
E-modulus 1mm/min	ISO 527	3800 MPa
Yield stress 50mm/min	ISO 527	52,5 MPa
Yield strain 50mm/min	ISO 527	4,2%
Strain at break 50min/min	ISO 527	8,0%
Impact Strength Izod Notched 23°C	ISO 180-1A	3,8 kJ/m <sup>2</sup>

### Colours:

CARBON-P @df is available from stock in it's natural dark grey. For other non stock colours please ask our team.

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### Thermal properties

Description	Testmethod	Typical value
printing temp.	-	225-245°C
Heat Distortion T.	ASTM D648	80°C

### Packaging:

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

### Additional info:

Due to virtually no warping of CARBON-P @df, this filament can also be printed without a heated bed. If you have a heated bed the recommend temperature is ± 35-60°C.

\* Please consider the use of a hardened steel nozzle when printing with CARBON-P @df. The carbon fibers are abrasive and will result in fast wear of regular brass nozzles.

CARBON-P @df 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.