

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)

RS PRO 3D Printing Materials-1.75mm Black CARBON

RS Stock No.: 910-7034



RS PRO Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

This 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 it suitable for a very wide variety of applications besides the typically mentioned RC parts, drones, automotive.

Colours:

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

Packaging:

This is available in nearly any type of packaging and labeling. Ask our team to help you customizing your product.

General Specifications

Size	1.75mm
Ø tolerance	± 0.05mm
Roundness	≥ 95%

Mechanical Specifications

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/m ²
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.