

Features

- Abrasive nature
- Specific gravity of 1.19g/cc
- Tensile strength at yield of 52.5Mpa
- Tensile modulus of 3800Mpa
- Strain at break of 8%
- Yield strain of 4.2%
- Tolerance of $\pm 0.05\text{mm}$
- Roundness of $\geq 95\%$
- Black in colour

RS PRO 3D Printer Filament – 1.75 mm

RS Stock No: 190-1952



RS PRO is the own brand of RS. The RS PRO Seal of Approval is your assurance of professional quality, a guarantee that every part is rigorously tested, inspected, and audited against demanding standards. Making RS PRO the Smart Choice for our customers.

3D Printing Materials

Product Description

The RS PRO 1.75mm diameter 3D printer filament has printing material of carbon-p which is a 20% carbon fibre reinforced PET-G based filament. This result is twice as stiff as PET-G based filament with increased impact and heat resistance (HDT) upto 80°C. Together with other features, such as matte 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.

Additional information:

Due to virtually no warping of CARBON-P, this filament can also be printed without a heated bed. If you have a heated bed the recommend temperature is $\pm 35-60^{\circ}\text{C}$.

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

Storage: Cool and dry ($15-25^{\circ}\text{C}$). This enhances the shelf life significantly.

General Specifications

Size	1.75mm
Dia. Tolerance	$\pm 0,05\text{mm}$
Roundness	$\geq 95\%$
Material Type	Composite
Printing Technology	FDM
Colour	Black
Weight	1 Kg
Printing Material	CARBON-P

Material Properties

Description	Test-Method	Typical Value
Specific gravity	ISO 1183	1,19 g/cc
MFR 300°C/1,2 kg	ISO 1133	N.D.
Tensile strength at yield	ISO 527	52.5 Mpa
Tensile modulus	ISO 527	3800MPa
Yield Strain 50mm/min	ISO 527	4.2%
Strain at break 50min/min	ISO 527	8%
Impact strength - Charpy notched 23°C	ISO 179	3,8 kJ/m2
Heat distortion temp	ASTM 648	80°C
Printing temp.	Print lab	235 \pm 10°C

Similar Products

RS stock no	Product Name
910-7034	RS PRO 1.75mm Black CARBON-P 3D Printer Filament, 500g
910-7043	RS PRO 2.85mm Black CARBON-P 3D Printer Filament, 500g
910-7046	RS PRO 1.75mm Black CARBON-P 3D Printer Filament, 300g
190-1953	RS PRO 2.85mm Black CARBON-P 3D Printer Filament, 1kg