

ICE FILAMENTS ICE-Carbon PRODUCT CARD

ICE Filaments ICE-Carbon is our 20% carbon fiber reinforced PET-G based filament. The result is a twice as stiff filament as ICE-PET with increased impact and heat resistance to 80°C. This, together with other features, such as a matt surface, no warp, dimensionally stable and extremely forgiving to print, makes ICE-Carbon 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*



COLOURS:

ICE Filaments ICE-Carbon is available from stock in a variety of colors. Other colors on request.

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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	1,19 g/cc
MFR 300°C/1,2kg	ISO 1133	N.D.
Tensile strength at yield	ISO 527	52,5 Mpa
Strain at yield	ISO 527	4,2%
Tensile Modulus	ISO 527	3800 Mpa
Impact Strength – Charpy notched 23°C	ISO 179	3,8 kJ/m ²
Printing temperature	ICE FILAMENTS	235 – 255°C
Melting temperature	ISO 11357	230°C ± 10°C
Vicat softening temperature	ISO 306	80°C

ADDITIONAL INFO:

Due to virtually no warping of ICE-Carbon, this filament can also be printed without a heated bed. If you have a heated bed, the recommended temperature is ± 35 – 60°C.

ICE Filaments ICE-Carbon 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.

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