

# FGF CARBON-P

CARBON-P is our 15% carbon fiber reinforced PET-G based material. The result is a more than twice as stiff filament as PET-G with increased impact and heat resistance. 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.

**Material features:**

- 15% Carbon fiber reinforced PET-G
- Extremely stiff
- Increased impact
- No warping and dimensionally stable
- Matt surface
- Abrasive (see \* at additional info\*)

**Colours:**

Colours on request. Ask your accountmanager.

**Packaging:**

FGF CARBON-P is available in 20kg bag

**Processing recommendations**

Drying	6hr,70°C. <200ppm
Zone 1 Temperature	220±20 °C
Zone 2 Temperature	245±20 °C
Zone 3 Temperature	220±20 °C
Mass temperature	218 °C
Die temperature	220±20 °C

**Material properties**

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,19 g/cc
MFR 200°C/5 kg	ISO 1133	3,7 g/10min
Tensile Strength at Yield	ISO 527	93 Mpa
Tensile Strength at Break	ISO 527	92 Mpa
Elongation-Strain at Yield	ISO 527	2,6%
Elongation-Strain at Break	ISO 527	3,4%
Tensile modulus	ISO 527	9495 Mpa
Impact strength - Charpy notched 23°C	ISO 179	5 kJ/m2
Vicat softening temperature	ISO 306 B50	62°C
Mold shrinkage	Internal method (ISO 294-4 based )	0,16%

**Additional info:**

Due to virtually no warping of CARBON-P, this filament can also be printed without a heated bed. Please consider the use of a hardened steel nozzle and, if used, a gear pump, when printing with CARBON-P. The carbon fibers are abrasive and will result in fast wear of brass nozzles.

Storage: Cool and dry (15-25°C) and away from UV light. This enhances the shelf life significantly.