CARBONFILL HOT3D™

CARBON-P 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 CARBON-P suitable for a very wide variety of applications besides the typically mentioned RC parts, drones, automotive and more

Features

- 15% Carbon fiber reinforced PET-G
- Extremely stiff
- Increased impact and heat resistance
- No warping and dimensionally stable
- Matt surface
- Abrasive

1. Identification of the material

Trade name:	HotOrange3D
Chemical name:	Carbonfill
Use:	3D printing
Origin:	HotOrange3D – Netherlands

2. Printer settings

Printer:	Desktop FFF printer	
Heated bed:	>60	°C
Nozzle:	Hardened steel required	
Cooling:	Less active cooling	

3. Material properties

Specific gravity:	1,31	g/cc	ISO 1183
MFR 200°C/5 kg:	3,8	g/10min	ISO 1183
Tensile Strength at Yield:	101	MPa	ISO 527
Tensile Strength at Break:	100	MPa	ISO 527
Elongation-Strain at Yield :	2,7	%	ISO 527
Elongation-Strain at Break :	3,7	%	ISO 527
Tensile modulus:	9930	MPa	ISO 527
Impact strength - Charpy notched 23˚C :	7	kJ/m2	ISO 179
Printing temp.:	240±10	°C	Internal method
Vicat softening temperature:	75	°C	ISO 306
Heat deflection temperature :	78,6	°C	ISO 306