

# PET Carbon F. TDS

## AzureFilm PET Carbon Fiber for FDM 3D Printers

### Product Description

AzureFilm PET CF is easiest to print with carbon fiber filled material on the market. This filament has excellent mechanical properties with no warping, including high z-layer strength, with short (max. 3hrs) temperature resistance up to 125 °C and low water uptake.

### Properties

Physical properties	Test method	Value
Material	<b>PET Carbon Fibre</b>	Color Black
Specific gravity	ISO 1183-3	1,4 g/cm <sup>3</sup>
Water absorption	23°C / 24h ISO 62	< 0,3 %
<b>Mechanical properties at 23°C / 50% rh</b>		
Tensile strength	ISO 527	80 MPa
Elongation at maximum force	ISO 527	2,5%
Modulus of elasticity	ISO 527	9 GPa
Flexural strength	ISO 178	130 MPa
Flexural elongation at max. force	ISO 178	3,5 %
Flexural modulus	ISO 178	8 Gpa
Charpy impact strength	ISO 179 1eU	40 kJ/m <sup>2</sup>
<b>Thermal properties</b>		
Service temperature (up to 3hrs)	During lifetime max. 200h ISO 3167 A	125 °C
Continuous service temp.	UL 746B	100 °C

### Printing Recommendations

Nozzle temperature: 245 – 270°C

Heated bed: recommended 80-90 °C

Print speed: 40 – 60 mm/s

Layer height: 0,2 mm

Nozzle diameter: 0,6 mm

Build platform: Blue tape, Kapton tape, glass bed + Dimafix spray