

# PAHT Carbon F. TDS

## High-Temperature Polyamide with Carbon Fiber for FDM 3D Printers

### Product Description

AzureFilm PAHT Carbon Fiber is a high temperature polyamide based material. This 3D Filament is high performance material for industrial 3D printing. Is temperature resistant up to 160°C and can be used for printing durable end user parts.

### Properties

Physical properties	Test method	Value
Material	<b>PAHT Carbon Fiber</b>	Color Black
Specific gravity	ISO 1183-3	1,24 g/cm3
Water absorption	23°C / 24h ISO 62	< 0,3 %
<b>Mechanical properties at 23°C / 50% rh</b>		
Tensile strength	ISO 527	130 MPa
Elongation at maximum force	ISO 527	2 %
Modulus of elasticity	ISO 527	11,5 GPa
Charpy impact strength	ISO 179	35 kJ/m2
<b>Thermal properties</b>		
Heat distortion temperature	ISO 75	90 °C
Continuous service temp.	20.000 h IEC 60216	120 °C
Service temperature	During lifetime max. 200h ISO 3167 A	160 °C
<b>Electrical properties</b>		
Insulation resistance strip electrode	DIN IEC 60167	≤10 <sup>2</sup> Ω
Surface resistance	DIN IEC 60093	<10 <sup>2</sup> Ω

### Printing Recommendations

Nozzle temperature: 270 – 290°C

Heated bed: recommended 90-120 °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