

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	PAHT Carbon Fiber	Color Black
Specific gravity	ISO 1183-3	1,24 g/cm ³
Water absorption	23°C / 24h ISO 62	< 0,3 %
Mechanical properties at 23°C / 50% rh		
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/m ²
Thermal properties		
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
Electrical properties		
Insulation resistance strip electrode	DIN IEC 60167	≤10 ² Ω
Surface resistance	DIN IEC 60093	<10 ² 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