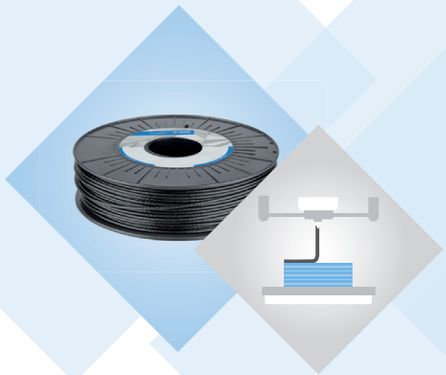
FORWARD AM
Innovating Additive Manufacturing

BASF
We create chemistry



Ultrafuse® PAHT CF15

High Temperature PA with 15 % Carbon Fiber

Ultrafuse® PAHT CF15 is a high-performance 3D printing filament that opens up new application areas in FFF printing. It works in any FFF printer with a hardened nozzle. Additionally, it is compatible with BVOH, water-soluble support material, and HIPS which enables the printing of complex geometries for the most challenging operating environments.

Ultrafuse® PAHT CF15 combines high temperature and chemical resistance with outstanding mechanical resilience. Due to its excellent dimensional stability your printed component will display low shrinkage during printing, ensuring an easy print experience. The nature of the fibers ensures that the parts remain very strong and highly rigid.

Benefits at a Glance

- Higher chemical resistance than most PA grades
- High temperature resistance up to 150 °C
- Strong, rigid components
- High dimensional stability
- Easy to process
- Low moisture absorption

Example Applications

- Complex geometries in challenging environments
- Automotive

Material Properties (dry)

Tensile Strength (MPa)	18.2 (ZX), 103.2 (XY)
Flexural Modulus (MPa)	2715 (ZX), 7669 (XZ), 8258 (XY)
Elongation at Break	0.5 % (ZX), 1.8 % (XY)
Impact Strength Izod notched (kJ/m²)	5.1 (XZ), 4.9 (XY)
Impact Strength Izod unnotched (kJ/m²)	2.9 (ZX), 18.1 (XZ), 16.4 (XY)
HDT @ 0.45 MPa	145 °C

Printing Guidelines

Print Speed	30-80 mm / sec
NozzleTemperature	260-280 °C
Nozzle	Hardened/Ruby ≥ 0.6 mm diameter
Bed Temperature	100-120 °C
Bed Modification	PEI or clean glass
Fan Speed	0 %
Layer Height	0.2-0.4 mm

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