

## Factsheet | PAHT CF15

BASF has developed two polymer based composite filaments in order to unlock new possibilities and enable development of demanding industrial applications in FFF printing. Both PET CF15 and PAHT CF15 contain 15% of carbon fiber reinforcement which allows the printed object can withstand higher mechanical and thermal loads. Users will be able to utilise full potential of FFF printing for industrial applications with these two new engineering filaments.

### High temperature PA with carbon fiber

Polyamide is a thermoplastic that is used in wide range applications in different industries. With its special formulation, it brings more dimensional stability and allows to work under 150°C continuous temperatures with a peak temperature of 180°C in comparison to a standard PA. 15% carbon fiber reinforcement makes it stiffer thus open new fields for the printing of demanding applications.

### For standard FFF printers

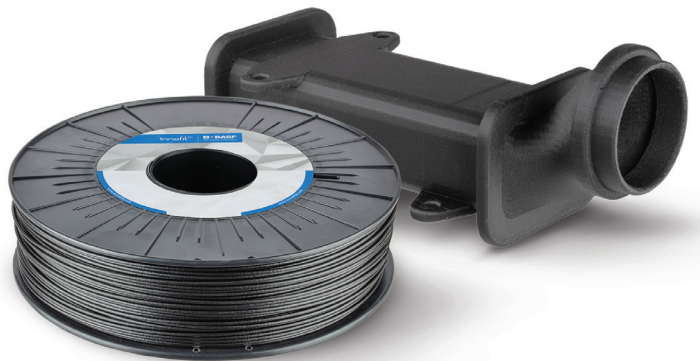
PAHT CF15 is a high-performance 3D printing filament that opens new application fields in FFF printing. In parallel to its advanced mechanical properties, dimensional stability and chemical resistance, it has very good processability. It works in any FFF printer with hardened nozzle. In addition to that, it is compatible with BVOH, water soluble support material and HIPS which allow to print complex geometries that works in challenging environments.

PAHT CF15 combines high temperature and chemical resistance with extreme mechanical properties .

#### Advantages of PAHT CF15

- Higher chemical resistance than most PA grades
- High temperature resistance up to 150°C
- Strong and stiff parts
- High dimensional stability
- Easy to process
- Low moisture absorption

### Serving the industry



Air-duct in PAHT CF15 developed for temperature resistance

Due to high dimensional stability your object will display low shrinkage during printing. This ensures an easy print experience and high dimensional stability. The nature of the fibers ensures that the parts are strong and stiff.

#### Guideline for Print Settings

Print Speed	30 – 60 mm/s
Nozzle temperature	240 – 260 °C
Nozzle	Hardened/Ruby Nozzle ≥ 0.6 mm diameter
Bed temperature	100 °C
Bed modification	Clean glass
Fan Speed	0%
Layer Height	≥ 0.2



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