



HP 3D Filament PEEK-CF

HP Industrial Filament (IF) 3D Printer 600 High Temperature (HT) Solution



Material overview

HP 3D Filament PEEK-CF is a PEEK-based filament with 10% carbon fiber reinforcement, designed for additive manufacture via Fused Filament Fabrication (FFF). The carbon fiber content increases strength and stiffness relative to standard PEEK grades. The material maintains performance up to 240°C and offers broad chemical resistance.

These properties make it suited for metal replacement in critical end-use applications across Oil & Gas, Aerospace, and Automotive.

Typical applications

- Suited for:
- Metal replacement parts in severe end-use environments
 - Oil & Gas components exposed to high temperatures and aggressive chemicals
 - Aerospace structural and functional parts
 - Automotive components in high-heat or chemically aggressive environments
 - High-load functional parts requiring dimensional stability

Regulatory¹

Certification / Approval	Scope
UL94-V0	Inherent flame retardancy of the raw material

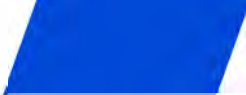
Approvals referenced apply to the raw material. Customers are responsible for verifying finished printed parts against applicable requirements.

Physical properties¹

	Testing method	Typical value
Density / Specific Gravity	ASTM D792	1.33 g/cm ³

Thermal properties¹

	Testing method	Typical value
Melting temperature	ASTM D3418	343 °C



Mechanical properties¹

	Testing method	Typical value
Tensile modulus	ASTM D638	11000 MPa
Tensile strength	ASTM D638	140 MPa
Tensile elongation	ASTM D638	1.7 %

Impact properties¹

	Testing method	Typical value
Notched izon impact	ASTM D256	89 J/m

Printing conditions for reported properties¹

	Conditions
Filament drying conditions	minimum 4 h: 150 °C
Extruder temperature	400-440 °C
Bed temperature	180-220 °C
Printing tool path	0°

Material specifications¹

Product name	Weight supply	Diameter filament
HP 3D Filament PEEK-CF Black	1 kg	1.75 mm

Process compatibility¹

Support material compatibility	HP 3D Filament SM30 White
Compatible printer modules	HP IF 3D Printer 500 Module

Safety Data Sheet (SDS)*

A general Safety Data Sheet covering HP 3D printing materials is available here: hp3dfilaments.com/safetydatasheets

This document provides guidance on safe handling, storage, and disposal. For material-specific questions, please contact your HP AM representative.

1. Typical values provided by Filament Provider. These results have not been validated on the HP Industrial Filament (IF) 3D Printer 600 HT Solution. Values are indicative; actual results may vary depending on print profile and process conditions. Contact HP to develop customized print profiles optimized for your application.

