

LUVOCOM® 3F PEEK CF 9676 BK

3F PEEK CF 9676 has outstanding mechanical properties in combination with its excellent thermal and chemical resistance. It is a flame retardant (UL 94-V0 rated) polyetheretherketone reinforced with carbon fibre - this improves the stiffness and compressive strength enormously. This material is suitable for dynamically stressed parts and applications which require inherent flame resistance.

Material features:

- Outstanding temperature and chemical resistance
- Very high strength and stiffness
- Suitable for dynamically-stressed parts
- Flame retardant
- Low smoke and toxic gas emissions



Filament specs.

Size	Ø tolerance	Roundness
1,75mm	± 0,05mm	≥ 95%
2,85mm	± 0,10mm	≥ 95%

Material properties

Description	Testmethod	Typical value
Specific gravity	ISO 1183	1,36 g/cc
MFI 380°C/10kg	ISO 1133	16 g/10min
Tensile strength at yield	ISO 527	126 MPa
Elongation strain at yield	ISO 527	3,9%
Tensile (E) modulus	ISO 527	7800 MPa
Impact strength charpy method 23°C – notched	ISO 179 1eA	7 kJ/m ²
Flammability behaviour	UL94	V-0
Heat deflection temp. A (1,8MPa)	ISO 75	280°C
Mold shrinkage	DIN 16742	0,2-0,4%
Printing temp.	Internal method	425±25°C

Additional info:

Recommended temperature for heated bed is $\geq 110^{\circ}\text{C}$. Adhesion is possible on different surfaces. LUVOCOM® 3F PEEK CF 9676 BK can be used on desktop FDM or FFF technology 3D printers able to reach the required temperatures. Dry the spool before printing: 6-8 hours at max. 120°C or 4 hours at 130°C .
**Please consider the use of a hardened steel nozzle when printing with LUVOCOM® 3F PEEK CF 9676 BK. The carbon fibers are abrasive and will result in fast wear of regular brass nozzles. Note: brass nozzles are not allowed - this contains copper which is reactive with PEEK.*

Storage: Cool and dry ($15-25^{\circ}\text{C}$) and away from UV light. This enhances the shelf life significantly.