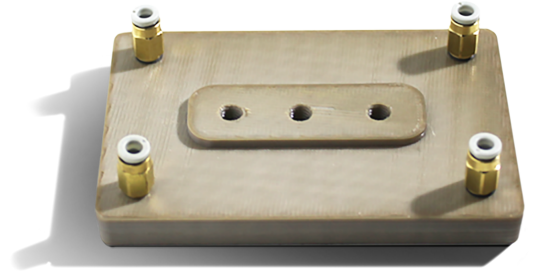


# LUVOCOM® 3F PEEK 9581 NT

Based on polyetheretherketone (PEEK), one of the worlds' highest performing engineering thermoplastics in the world and can replace metals. This unreinforced PEEK grade can be used for multiple applications in different industries, such as aerospace, gas, oil, automotive and medical. This semi crystalline thermoplastic provides high temperatures, excellent mechanical and chemical resistance properties. The excellent layer adhesion of 3F PEEK 9581 NT improves the impact resistance, strength, durability and the printing process. This material is also UL 94-V0 rated (self-extinguishing).

## Material features:

- Outstanding temperature and chemical resistance
- High strength, including z-layers
- Flame retardant
- Cytotoxicity proliferation according EN ISO 10993-1



## 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	1,31 g/cc
MFI 380°C/10kg	ISO 1133	29 g/10 min
Tensile strength at yield	ISO 527	97 MPa
Elongation strain at yield	ISO 527	5%
Tensile (E) modulus	ISO 527	3800 MPa
Flexural strength	ISO 178	145 MPa
Flexural modulus	ISO 178	3400 MPa
Impact strength charpy method 23°C – notched	ISO 179 1eA	7 kJ/m <sup>2</sup>
Flammability behaviour	UL94	V-0
Heat deflection temp. A (1,8MPa)	ISO 75	145°C
Printing temp.	Internal method	395±25°C

## Additional info:

Recommended temperature for heated bed is  $\geq 110^{\circ}\text{C}$ . Adhesion is possible on different surfaces. LUVOCOM® 3F PEEK 9581 NT 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.  $120^{\circ}\text{C}$  or 4 hours at  $130^{\circ}\text{C}$ . *Note: brass nozzles are not allowed - this contains copper which is reactive with PEEK.*

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