

# SELECT™

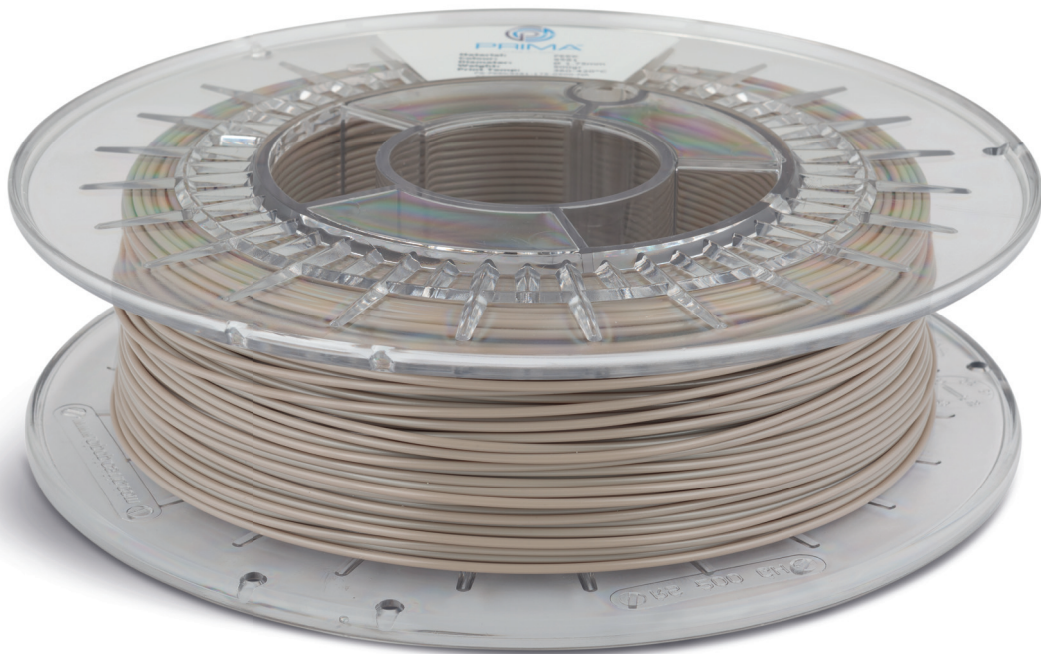
## PEEK

### Why should you use Prima SELECT™ PEEK?

- New formula makes it easy to print\*
- One of the strongest filament on the market
- Excellent heat resistance
- Very high chemical resistance
- Can be used for a wide range of applications



\*Compared with regular PEEK



### SELECT™ PEEK

**Prima SELECT Luvocon 3F 9581 PEEK (Polyether Ether Ketone)** is a semicrystalline thermoplastic that is one of the most used high-performance plastics in the world. It is used to manufacture parts for the aerospace, gas, oil, medical and automotive industries.



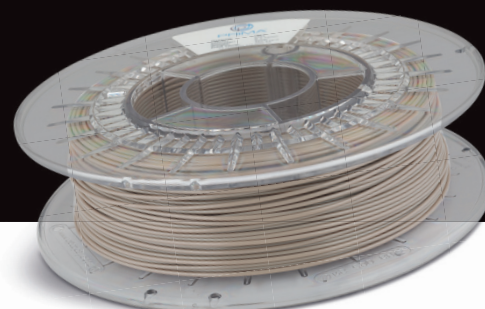
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## PEEK



**PEEK** is most often used to replace different polymer and metal components in cars, machines and airplanes. Thanks to a very high heat and chemical resistance PEEK can be used in many ways as metal components are usually used. It can retain its properties at high service temperatures over a long time. PEEK is also used in the medical field as it is perfect to make customized prosthetic parts such as arms, hands and cranial implants.

**For a long time, PEEK** was one of the hardest materials to print but after much research an additive was introduced and the PEEK Luvocom 9581 was introduced. This new additive has changed the way PEEK can be used as it is now made to work better with FDM printers. The SELECT PEEK never comes in contact with water during the manufacturing process and is directly packed in vacuum sealed bags. This and the additive create a PEEK filament with excellent layer adhesion which of course greatly improves the impact resistance, durability, strength and also makes the printing process much easier than with regular PEEK.

### To make a successful PEEK print there are a few things to keep in mind:

- The printer must have the performance to meet the PEEK filament and it should be printed with a nozzle temperature of 360 - 400°C.
- The heat bed should be set to 120°C and a heated chamber is important to have.
- It's also very important to make sure that the printer is placed in a room where there's hardly any draft and temperature fluctuations.
- PEEK is best printed on a PEI sheet at a printing speed of 15-30 mm/s.

For further information, check the MSDS.

### Measurements and Tolerance

Size	Diameter tolerance	Roundness
1,75 mm filament	+/- 0,05 mm	97%
2,85 mm filament	+/- 0,10 mm	97%
Moisture content	< 0,05%	

### Physical properties

Description	Value	Test method
Density	1,31 g/cm <sup>3</sup>	ISO 1183

### Mechanical properties

Description	Value	Test method
Tensile Modulus	3,8 GPa	ISO 527
Tensile Strength	97 MPa	ISO 527
Impact strength Notched Izod	7 KJ/m <sup>2</sup>	ISO 1791eA

### Printer settings

Description	Value
Printer nozzle temperature	360 - 400°C
Heated bed temperature	120°C
Print Speed	15-30 mm/s
Bed Adhesion	PEI Sheet

Reseller: