

PEEK

ENGINEERING PLASTICS FOR FDM 3D PRINTING



MATERIAL NAME

PEEK

COLOR

Natural

PROCESS

FDM

PRODUCT DESCRIPTION

PEEK is a high-performance engineering plastic with excellent high temperature resistance, strength, chemical resistance, flame retardancy and wear resistance. It can be used for high-temperature fixtures, high-demand functional prototypes and low-volume end parts in the aerospace, automotive and medical fields.

TYPICAL APPLICATIONS

- Functional prototype testing
- End-use plastic parts
- Assembly testing
- Chemical/Energy Equipment Parts

PRODUCT SAFETY

Thermoplastic printed parts should be handled according to normal workshop safety practices. Avoid high heat, open flames, and inhalation of fumes generated during post-processing or overheating.

PRODUCT DELIVERY & WAREHOUSING

- STORAGE**
Store parts in a dry, cool, and clean environment away from direct sunlight and high heat. Keep the material sealed before processing.
- TRANSPORTATION**
Pack parts securely to prevent warping, scratching, and impact. Protect from moisture and temperature swings during transit.

PROPERTIES OF PRINTED MATERIAL

Properties	Test Method	Value
Density (g/cm3)	ISO 1183	1.19 g/cm3
Water Absorption (%)	ISO 62	0.3%
Hardness	ISO 868	Shore D 83
Tensile strength (MPa)	ISO 527	77 MPa
Elongation at break	ISO 527	21%
Flexural strength (MPa)	ISO 178	122 MPa
Flexural modulus (MPa)	ISO 178	3163 MPa
Heat deflection temperature @ 0.45 MPa (deg C)	ISO 75	HDT @ 0.45 MPa: 147 deg C
Impact strength notched	ISO 180	138 KJ/m²; ISO 180 (Izod)

Tips: Want to explore a wider range of materials? Check out <https://www.unionfab.com/materials>