

PPS-GF

ENGINEERING PLASTICS FOR FDM 3D PRINTING



MATERIAL NAME

PPS-GF

COLOR

Grey

PROCESS

FDM

PRODUCT DESCRIPTION

PPS-GF is a glass fiber reinforced PPS engineering plastic with high heat resistance, flame retardancy, insulation, low water absorption and high dimensional stability. It is suitable for electrical equipment, automotive fluid systems and high-temperature tooling.

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	1.36 g/cm3
Water Absorption (%)	ISO 62	0.05%
Hardness	ISO 868	Shore D 83
Tensile strength (MPa)	ISO 527	XY: 72 Z: 42 MPa
Tensile modulus (MPa)	ISO 527	XY: 5764 Z: 2581 MPa
Elongation at break	ISO 527	XY: 1.6 Z: 0.7%
Flexural strength (MPa)	ISO 178	XY: 112 Z: 58 MPa
Flexural modulus (MPa)	ISO 178	XY: 4530 Z: 2212 MPa
Heat deflection temperature @ 0.45 MPa (deg C)	ISO 75	HDT @ 0.45 MPa: 241 deg C
Impact strength notched	ISO 179	XY: 31.7 Z: 10.6 KJ/m²; ISO 179 (Charpy)

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