

PPS-CF

ENGINEERING PLASTICS FOR FDM 3D PRINTING



MATERIAL NAME

PPS-CF

COLOR

Black

PROCESS

FDM

PRODUCT DESCRIPTION

PPS-CF is a carbon fiber reinforced PPS engineering plastic with high heat resistance, low water absorption, chemical resistance, flame retardancy and high rigidity. It is suitable for high temperature fixtures, electrical/automotive functional parts and lightweight structural parts.

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	1.26 g/cm3
Water Absorption (%)	ISO 62	0.05%
Hardness	ISO 868	Shore D 84
Tensile strength (MPa)	ISO 527	XY: 93 Z: 46 MPa
Tensile modulus (MPa)	ISO 527	XY: 8347 Z: 3026 MPa
Elongation at break	ISO 527	XY: 1.8 Z: 0.7%
Flexural strength (MPa)	ISO 178	XY: 137 Z: 62 MPa
Flexural modulus (MPa)	ISO 178	XY: 7402 Z: 2885 MPa
Heat deflection temperature @ 0.45 MPa (deg C)	ISO 75	HDT @ 0.45 MPa: 264 deg C
Impact strength notched	ISO 179	XY: 22.3 Z: 8.8 KJ/m²; ISO 179 (Charpy)

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