

ABS-CF

COMPOSITES FOR FDM 3D PRINTING



MATERIAL NAME

ABS-CF

COLOR

Black

PROCESS

FDM

PRODUCT DESCRIPTION

Carbon Fiber ABS is an FDM composite material that adds chopped carbon fiber to an ABS matrix. It has the impact resistance and post-processability of ABS while improving rigidity, dimensional stability and reducing shrinkage. It is suitable for functional prototypes, fixtures and medium-sized end parts.

TYPICAL APPLICATIONS

- Functional prototype testing
- End-use plastic parts
- Mounting brackets
- Jigs and fixtures

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	1.1 g/cm3
Water Absorption (%)	ISO 62	0.2%
Hardness	ISO 868	Shore D 78.2
Tensile strength (MPa)	ISO 527	29.9 MPa
Elongation at break	ISO 527	5.7%
Flexural strength (MPa)	ISO 178	76.2 MPa
Flexural modulus (MPa)	ISO 178	2694 MPa
Heat deflection temperature @ 0.45 MPa (deg C)	ISO 75	HDT @ 0.45 MPa: 95 deg C
Impact strength notched	ISO 180	3.5 KJ/m²; ISO 180 (Izod)

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