

ABS-FR

STANDARD PLASTICS FOR FDM 3D PRINTING



MATERIAL NAME

ABS-FR

COLOR

Black&White

PROCESS

FDM

PRODUCT DESCRIPTION

ABS-FR is a flame-retardant modified ABS that combines the toughness, heat resistance and processability of ABS with added flame-retardant properties. It is suitable for electronic and electrical enclosures, equipment components, fixtures and functional prototypes with flame-retardant requirements.

TYPICAL APPLICATIONS

- Functional prototype testing
- End-use plastic parts
- Assembly testing
- Mounting brackets

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	1.15 g/cm3
Water Absorption (%)	ISO 62	0.6~0.9%
Hardness	ISO 868	Shore D 79
Tensile strength (MPa)	ISO 527	XY: 31.4 ± 4 MPa
Elongation at break	ISO 527	XY: 11.6±2%
Flexural strength (MPa)	ISO 178	XY: 55 ±5 MPa
Flexural modulus (MPa)	ISO 178	XY: 1750±200 MPa
Heat deflection temperature @ 0.45 MPa (deg C)	ISO 75	HDT @ 0.45 MPa: 90.5±3 deg C
Impact strength notched	ISO 180	XY: 13.7±3 KJ/m²; ISO 180 (Izod)

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