

## Acrylonitrile Styrene Acrylic Ester Carbon Fiber 10% (ASA CF10)

### General

ASA CF10 filament is an innovative 3D printing material made of acrylonitrile styrene acrylic ester and 10% carbon fiber. This filament offers an excellent combination of strength, UV resistance and low weight, making it particularly suitable for outdoor applications and technical components.

ASA CF10 is extremely resistant to UV rays and weathering, making it ideal for outdoor use. The addition of 10% carbon fiber increases mechanical strength and rigidity, making printed parts more stable and durable.

Despite its high strength, ASA CF10 remains lightweight, which makes it interesting for applications where weight plays a crucial role.

ASA CF10 is less prone to warping than other filaments, resulting in more accurate and higher quality print results.

This filament is perfect for demanding projects where durability, weather resistance and mechanical properties are paramount.

### Advantageous

- Excellent weather resistance
- Resistant to UV rays
- Increased mechanical strength and rigidity
- Less warping

### Disadvantageous

- increased wear of the print nozzle
- only available in black color

### Processing Data

#### Printing temperature

210-260 °C

#### Heatbed temperature

90-110 °C

#### Drying temperature

80 °C

#### Drying time

2-4 h

### Specifications

Shrinkage (ASTM D955)	-	%
MFR (ASTM D1238)	5.2	g/10min
Yield Stress (ASTM D638)	84	Mpa
Yield Elongation (ASTM D638)	9.19	%
Elongation at Break (ASTM D638)	9.19	%
Tensile modulus (ASTM D790)	6430	Mpa
Deflection temperature 0.45 MPa (ASTM D648)	130	°C
Vicat Softening Temperature A (ASTM D1525)	-	°C
Thermal conductivity 23°C	-	W/(K*m)
Flammability (UL 94)	HB	
Density (ASTM D792)	1.11	g/cm <sup>3</sup>