

## ASA CF Technical Data Sheet

ASA-CF is an FFF 3D printing filament produced with an ASA modified material containing carbon fiber. It has excellent dimensional stability, flexural strength and rigidity, and has excellent weather resistance, temperature resistance and antistatic properties.

To prevent moisture absorption and contamination, the packaging of filament should be kept airtight and undamaged until they are opened for use. For the same reason, some used filament should be resealed before storage. If filament deteriorates due to moisture absorption, they should be dried before use. It is recommended to dry the filament in a dryer at 80°C for at least 5 hours to ensure the success rate and quality of the printed model. If using ASA-CF as its own support material, remove the support structure after the model has cooled. Otherwise, the support structure may be glued to the model and difficult to remove. After the model is printed, it is recommended to dry it in a dryer at 80~100°C for 1~3 hours to increase the strength of the model.

### Main features :

Easy to print / dimensionally stable / high stiffness

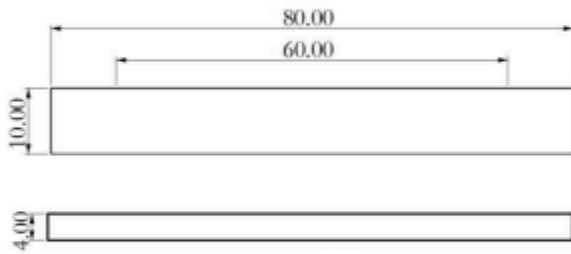
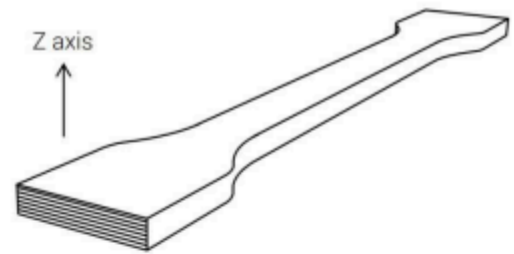
Physical Properties	Test Means		
Density	ISO 1183	g/cm <sup>3</sup>	1.09~1.10
MFR(250°C/2.16Kg)	ISO 1133	g/10min	4~7
Moisture Absorption(23°C/24h)	ISO 62	%	<0.5
Mechanical Properties			
Tensile strength	ISO 527	Mpa	39~42
Elongation at break	ISO 527	%	15.5~17.5
Flexural Modulus	ISO 527	Mpa	850~900
Flexural Strength	ISO178	Mpa	80~82.5
Impact Strength	ISO180	KJ/m <sup>2</sup>	10.5~12
Thermodynamic Properties			
HDT@ 0.455 MPa(66 psi)	ISO75	°C	88
Continuous Use Temperature	IEC 60216	°C	85

**Test Sample Printing Conditions:**

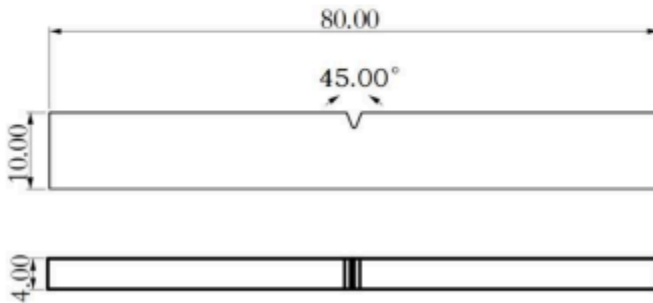
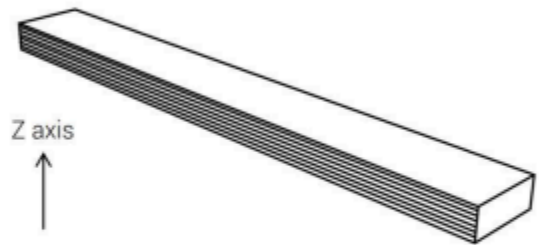
3D Printer	Guider IIS (Flashforge)
Nozzle Diameter	0.4mm
Nozzle Temperature	270 °C
Printing Speed	50mm/s
Layer	1.2mm
Infill	100%
Standard Printed Sample	See blew attachment



Tensile testing specimen; ASTM D638 (ISO 527, GB/T 1040)



Flexural testing specimen; ASTM D790 (ISO 178, GB/T 9341)



Impact testing specimen; ASTM D256 (ISO 179, GB/T 1043)

