NorthPrint 3D

Version 1.0

Technical Data Sheet

PETG-CF Filament

PETG-CF has excellent dimensional stability and rigidity, making it easier to print than PETG filament.

Main features:

Dimensionally stable / high strength / easy to print

Main Specifications:

Physical Properties	Test Means		
Density	ISO 1183	g/cm3	1.27~1.28
MFR(250℃/2.16Kg)	ISO 1133	g/10min	10~15
Moisture Absorption(23℃/24h)	ISO 62	%	＜0.8
Mechanical Properties			
Tensile strength	ISO 527	Mpa	40~43
Elongation at break	ISO 527	%	7.5~8.5
Flexural Modulus	ISO 527	Mpa	2100~2400
Flexural Strength	ISO178	Mpa	75~85
Impact Strength	ISO180	KJ/m^2	3~3.5
Thermodynamic Properties			
HDT@ 0.455 MPa(66 psi)	ISO75	℃	70
Continuous Use Temperature	IEC 60216	℃	80

Test Sample Printing Conditions:

3D Printer	Guider IIS （Flashforge）
Nozzle Diameter	0.4mm
Nozzle Temperature	240 °C
Printing Speed	50mm/s
Layer	1.2mm
Infill	100%
Standard Printed Sample	See blew attachment

Recommended Printing Parameters:

Parameters	
Nozzle Temperature	230~250℃(240℃ recommended)
Bed Temperature	50~80℃(70℃ recommended)
Bed Materials	Tempered glass, BuildTak, Carbon fiber board
Nozzle Diameter	Φ0.4/0.6mm(Φ0.4mm recommended)
Nozzle and Feeding Gear Material	High Strength Steel
Model Cooling Fan	50~100%
Layer	0.12~0.3mm
Printing Speed	40~60mm/s(50mm/s recommended)
Idle Speed	60~120mm/s
Printing Environmental Temperature	Room temperature to 65℃
Retraction Distance	1~2mm
Retraction Speed	30~50mm/s
Supporting Materials	Self-support

Note:

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.

Because of the addition of carbon fiber, PETG-CF filament is more likely to absorb moisture than PETG filament, and it should be dried before use. It is recommended to dry the filament in a hot air oven at 70°C for at least 5 hours to ensure the success rate and quality of the printed model.

After the model is printed, it is recommended to dry it in an oven at 70 °C for 1~3 hours to increase the strength of the model.

Disclaimer:

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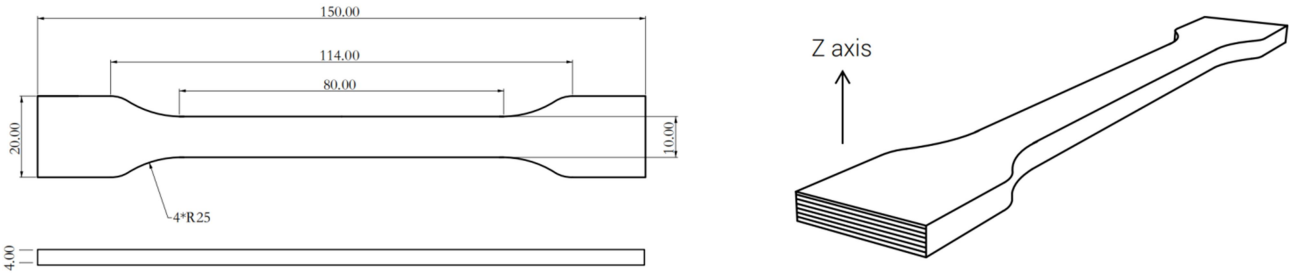
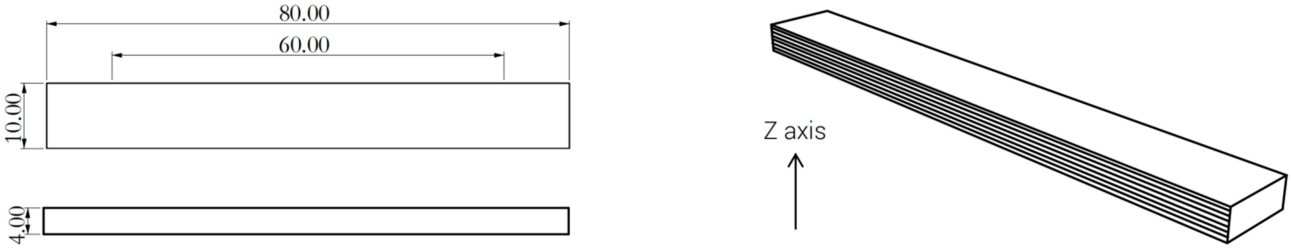
Attachment: Test sample dimensions and printing direction



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



Flexural testing specimen; ASTMD790 (ISO 178, GB/T 9341)

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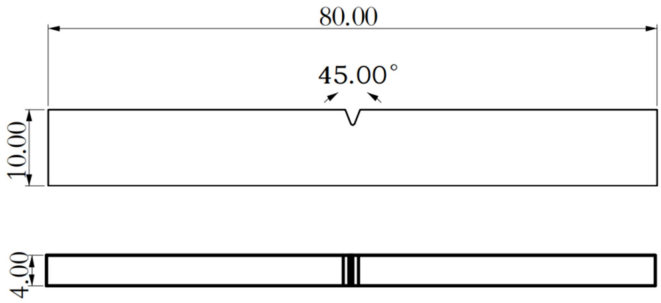

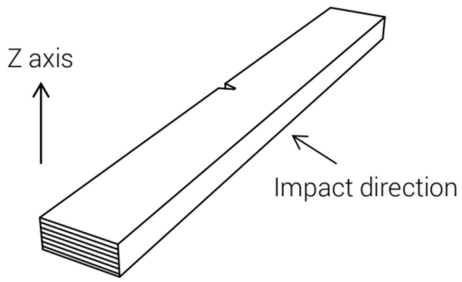

Impact testing specimen; ASTM D256 (ISO 179, GB/T 1043)