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CreatBot Pet-Cf High Performance Filament

Specifications

- Material: PET-CF Filament
- Moisture Content: Keep below 15%
- Nozzle Material: Hardened steel or higher hardness (recommended 0.6 mm diameter)

Product Usage Instructions

- Keep the PET-CF Filament dry by storing it in a filament warehouse with the drying function turned on or in an external moisture-proof box with humidity below 15%.
- For long-term storage, use an aluminum foil bag and vacuum preservation to prevent dampness affecting printing quality.
- When loading filament, seize the line head and carefully insert it into the extruder to prevent tangling.
- Standardize the unrolling operation to avoid wire jam faults during printing.
- Due to high fiber content, PET-CF Filament is prone to breaking.
- Avoid installing through guide tubes and instead place the spool outside the machine for use.
- Use a hardened steel nozzle with higher hardness to ensure wear-resistance and longevity when printing fiber-containing filament.
- Adhere to the recommended parameter settings for nozzle temperature, base plate temperature, storage temperature, cooling fan, print speed, rebound distance, and retracement rate to optimize printing results.

- Refer to specific annealing treatment guidelines for PET-CF Filament to enhance its properties.

PET-CF Filament Application Guide

Keep dry

1. After the filaments are unpacked for the first time, they should be put into the filament warehouse immediately and the drying function of the filament should be turned on; or they should be placed in an external moisture-proof box for use, and the humidity should be kept below 15%. If not used for a long time, they should be put into an aluminum foil bag and vacuum preserved.
2. Due to the characteristics of the material itself, dampness will affect the printing quality. Strict moisture-proof storage is the basis for ensuring the printing effect. The damp filament can be dried to restore the printing quality. The damp filament should be dried in a drying oven at 100°C for 6-8 hours.

*The model shown is a display of a common filament material under moisture.
The color and brushed state of different filament may vary, so please refer to the actual situation.

Supplies after unpacking
Keep dry
Printed models

Supplies after unpacking
RH80% environment
Placement of 1-day printed model

Supplies after unpacking
RH80% environment
Placement of 2-day printed model

Supplies after unpacking
RH80% environment
Placement of 3-day printed model

Loading method

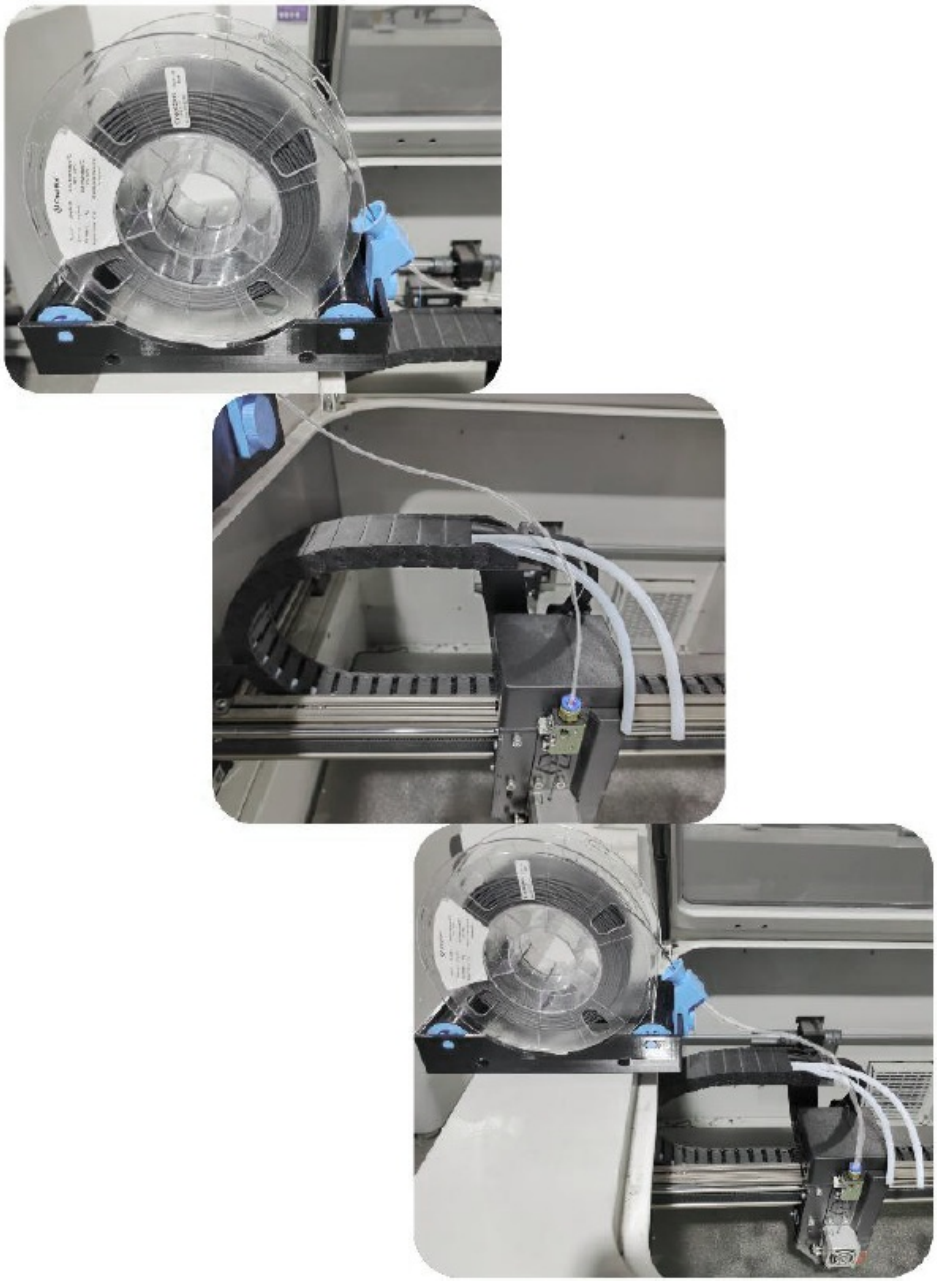
- When loading filament, the line head of filament should be seized and put into the extruder to prevent the full roll of filament from being scattered and falling off the hand, resulting in disordered winding of filament and wire jam.
- Standardizing the unrolling operation can avoid wire jam faults in the feeding process and ensure a smooth printing process.

Easy to break

- Due to the high fiber content and the material being dried before leaving the factory, 3D printed short-cut fiber materials are typically brittle and prone to breaking.
- These materials are easily broken when installed through the guide tube, so it is

recommended that customers place the spool outside the machine for use.

- Refer to the diagram below to ensure that the pneumatic joint between the extruder end and the moisture-proof box end has a bending angle of at least 110°.



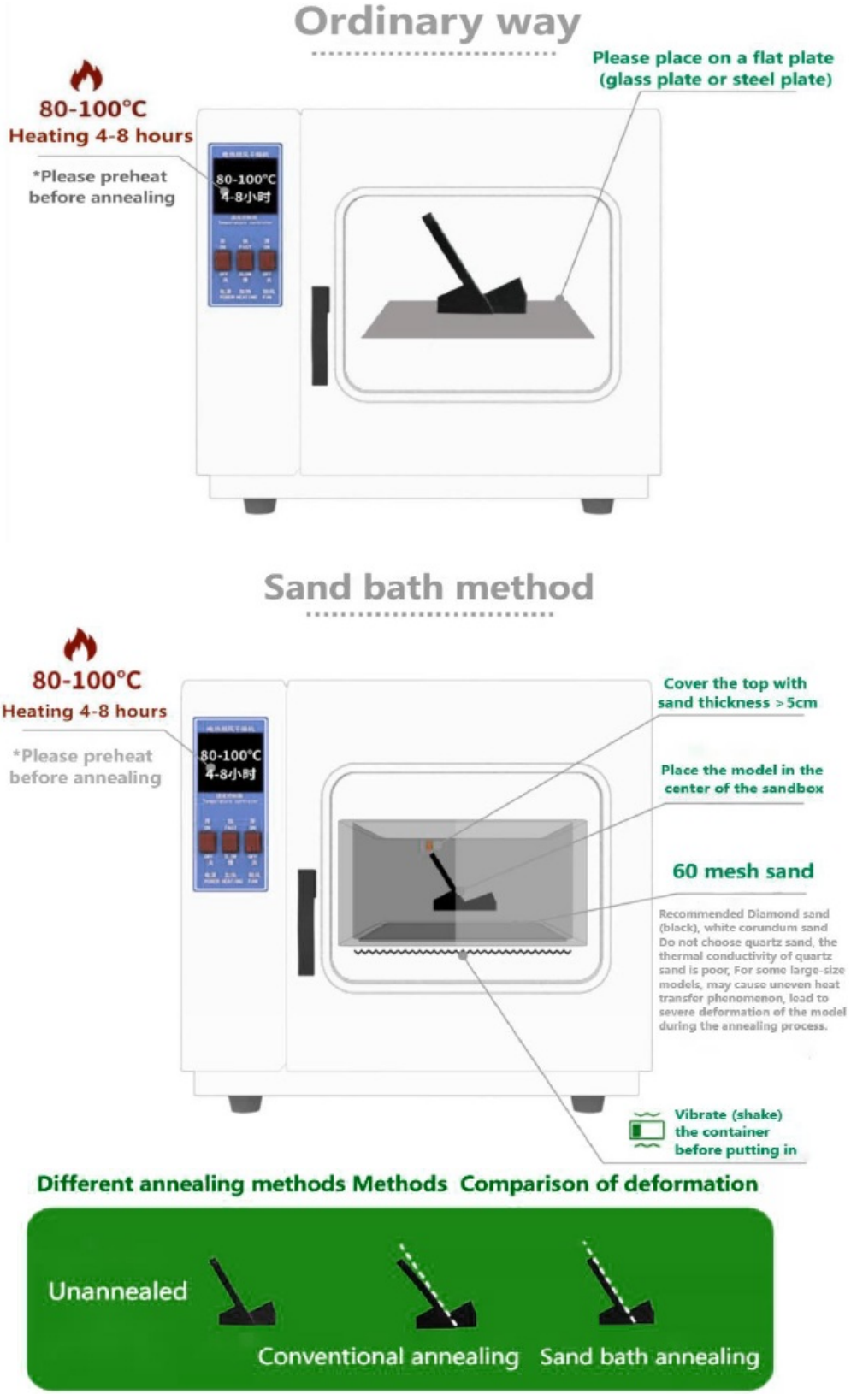
Nozzle material

- Hardened steel or higher hardness (recommended 0.6 mm diameter)
- The hardened steel nozzle is wear-resistant and suitable for fiber-containing filament, which can extend the service life of the nozzle and avoid frequent replacement, affecting printing.

Print the parameter setting template

Parameter type	Recommended scope	Explain
Nozzle temperature	300 – 320°C	Ensure that the material is fully melted to avoid a plug and provide smooth extrusion conditions for printing
Base plate temperature	70 – 90°C	Improve the adhesion of the first floor, reduce warping, and ensure that the bottom of the printed piece is well bonded with the base plate
Storage temperature	Support unsealed box printing	No additional temperature control equipment is required to simplify the printing environment requirements
cooling fan	close	Prevent the interlayer bonding from being poor due to rapid cooling, and ensure the interlayer bonding strength
print out rate	30 – 120 mm/s	It is recommended to start debugging at low speed, avoid drawing, and optimize the speed according to the actual printing effect
Rebound distance	0.8 – 3 mm	Reduce the drawing phenomenon, adjust according to the equipment, and adapt to the feeding characteristics of different equipment
The retracement rate	30 – 60 mm/s	Cooperate with the return distance to optimize extrusion control and ensure the appearance quality of printing

Annealing treatment guide



It is important to note that the annealing process is usually accompanied by shrinkage and deformation of the model, so you need to be careful in choosing whether or not to anneal the model.

FAQ

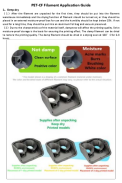
Q: Why is it important to keep the PET-CF Filament dry?

A: Moisture can affect the printing quality of the filament due to its characteristics, so keeping it dry is essential for successful 3D printing.

Q: What is the recommended nozzle material for PET-CF Filament?

A: Hardened steel or a material with higher hardness preferably with a 0.6 mm diameter is recommended to ensure durability and longevity of the nozzle.

Documents / Resources

	CreatBot Pet-Cf High Performance Filament [pdf] Instructions Pet-Cf High Performance Filament, High Performance Filament, Filament

References

- User Manual

CreatBot

CreatBot, Filament, High Performance Filament, Pet-Cf High Performance Filament

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