

PA6-CF drying and printing

3DP-034 / REV A / 2026.09.01

Carbon-fiber-filled nylon 6 is useful for stiff functional prototypes, jigs and fixtures. SUNLU PA6-CF 20% was identified in recovered purchase context. Verify the actual spool label before using this profile; no successful print or tooling-load result was recovered.

STATUS	Recovered/Partial
CLASSIFICATION	3DP
MATERIAL	3D PRINT / MAKER
DISPOSITION	PUBLIC / RECOVERED/PARTIAL
CATEGORY	3D Printing
RECORD TYPE	project

GOAL

Run the first test described in this guide and record the result for pa6-cf drying and printing.

SOURCE STATE

Manufacturer-based starting profile-awaiting Robert's retest

EQUIPMENT

- FDM printer / slicer
- Slicer project
- Calipers or inspection method

MATERIALS

- PA6-CF

METHOD / STEPS

1. Identify the exact spool, then check nozzle, bed, feed-path and drying-temperature compatibility.
2. Dry using the applicable manufacturer schedule. Desiccant storage does not replace active drying of a wet spool.
3. Print a small bonding/fit coupon, record extrusion quality and measure it after cooling.

4. Adjust one variable at a time and save the successful slicer profile with material identity and drying history.

THINGS TO WATCH FOR

Popping, foamy extrusion and poor bonding can indicate moisture. Carbon fiber is abrasive, and tiny nozzles can clog. Nylon can change dimensions and stiffness after absorbing moisture. Annealing and final-part conditioning are different from filament drying; remeasure after either. A printed die needs its own load review and guarded test plan; do not infer a gauge or tonnage rating from these settings.

FIRST TEST / WHAT TO RECORD

Confirm fit and layer bonding on a small sample, and keep the moisture condition consistent between evaluation and use. A high advertised heat-deflection value is not a universal continuous-service temperature.

RESULT / WHERE THIS STANDS

Confirm fit and layer bonding on a small sample, and keep the moisture condition consistent between evaluation and use. A high advertised heat-deflection value is not a universal continuous-service temperature.

TROUBLESHOOTING

- Popping, foamy extrusion and poor bonding can indicate moisture. Carbon fiber is abrasive, and tiny nozzles can clog. Nylon can change dimensions and stiffness after absorbing moisture. Annealing and final-part conditioning are different from filament drying; remeasure after either. A printed die needs its own load review and guarded test plan; do not infer a gauge or tonnage rating from these settings.

SPECIFICATION

PRINTER	FDM printer / slicer
MATERIAL	PA6-CF
FOCUS	First layer, dimensions, surface, and function
VALIDATION	Small test print before release

DEVELOPMENT HISTORY

2026.09.01 / Rev A

Imported as an independent manifest record; public copy keeps uncertainty visible.

REFERENCE NOTES

SUNLU PA6-CF product settings

(<https://store.sunlu.com/products/nylon6-carbon-fiber-pa6-cf-3d-printer-filament-1kg>). Manufacturer numbers above are product-specific. The coupon geometry and evaluation workflow are proposed starting guidance, not tested results.

HOW-TO SOURCES

SUNLU PA6-CF product settings

<https://store.sunlu.com/products/nylon6-carbon-fiber-pa6-cf-3d-printer-filament-1kg>

RELEASED MATERIAL / SOURCE LINKS

3dp-034-public-summary.txt

PUBLIC SUMMARY / RECOVERED NOTES

<https://u225x.com/downloads/manifest-records/3dp-034-public-summary.txt>

RETURN TO THE LIVING RECORD

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This PDF preserves the public notes at this revision. Visit the record for updates and attached images.

<https://u225x.com/record/3DP-034>