

3D PRINTING GUIDE ASA EXTRAFILL

 **Plug in and print.**
Compatible with high speed printers.

 **Second life**
Sustainable spool

 **Dry before use it**

BASIC OVERVIEW

HARDNESS



IMPACT RESISTANCE



FLEXIBILITY



EASY OF PRINTING



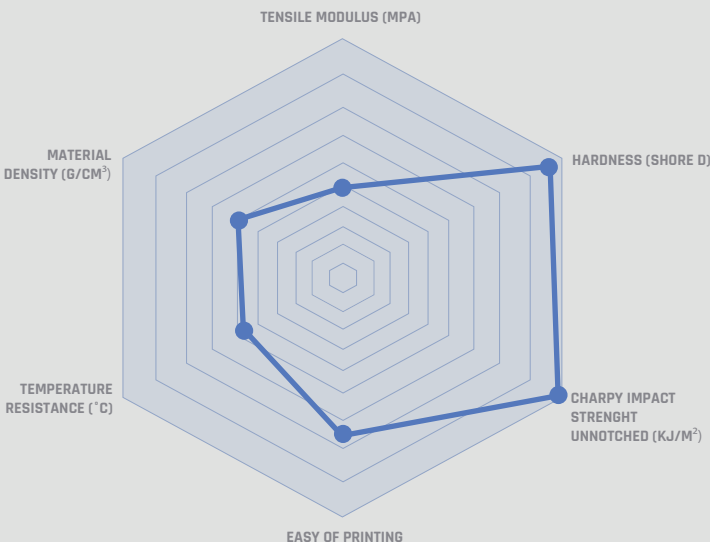
WEATHER RESISTANCE



WEAR AND ABRASION RESISTANCE



DETAILED VIEW



BASIC NON HIGH-SPEED PRINTERS SETUP

 **Print Temp:**
245 - 260 °C

For high-speed printing,
you can go up to 280 °C.

 **Bed Temp:**
65 - 75 °C

 **Printing Speed:**
40 - 100 mm/s


Recommended speed
depends on the printer type.

 **Cooling Fan:**
10 - 50 %

Lower cooling helps minimize
warping in larger prints.

Nozzles: Standard brass nozzles work well with our ASA filaments. If
printing at high temperatures, use the nozzle is of good quality. Hardened
steel nozzles are a better option for durability.

HIGH SPEED PRINTERS SETUP

 **Print Temp:**
245 - 280 °C

 **Printing Speed:**
40 - 300 mm/s

Recommended speed
depends on the printer type.

 **Bed Temp:**
90 - 110 °C

 **Cooling Fan:**
10 - 70 %

Lower cooling helps minimize
warping in larger prints.

DISCLAIMER:
Drying: highly recommended 80 °C for 3 hours
Storage 15 - 25 °C with low humidity.

TIPS BEFORE YOU START

HEATED BED SURFACE:
PEI, mirror/glass

ADHESIVE:
Magigoo, 3Dlac, PVA glue

RAFT/SKIRT/BRIM:
Skirt / Brim 5 mm

HEATED CHAMBER/ ENCLOSURE:
Not needed

COOLING:
It is not recommended to use more than 30 %
of fan speed, as fast cooling could lead to
improper layer bonding. We recommend using
no cooling for standard objects, which leads to
stronger parts. For bridges and big overhangs, it
is possible to go up to 50 % for the desired layer.

 **DATASHEETS AND MORE...**
24/7 AVAILABLE

TIPS FOR PREVENTING COMMON ISSUES WITH ASA FILAMENT

1 Warping Prevention

Our ASA filaments are high quality but can be more
sensitive to warping, especially with larger objects.
Here are some tips to prevent it.

Heated Chamber: Print in a closed, heated chamber
if possible to maintain consistent temperatures. If
you don't have a heated chamber, preheat enclosure
to 50 °C for at least 30 minutes before printing. Use
BED for it.

Experiment with slower speeds: Try printing at
slower speeds to improve print quality, particularly
for more complex models.

2 Protection Against Cracking and Delamination

ASA may sometimes show cracking between
layers or poor layer bonding.

Lower fan speed: Set the cooling fan to lower
values (5 - 30 %) to prevent excessive cooling,
which can lead to cracking.

Optimal temperatures: Ensure that the nozzle and
bed temperatures are within the recommended
ranges (245 - 260 °C for the nozzle, 90 - 105 °C for
the bed). Lower temperatures can cause poor
layer adhesion.

3 Minimizing Stringing

If fine strings appear during ASA printing,
you can use the following tips:

Proper retraction: Ensure that your retraction
settings are correct. Increasing retraction can
help reduce stringing.

Lower nozzle temperature: If stringing occurs,
try reducing the nozzle temperature to the lower
end (245 °C).

Nozzle cleaning: Check for any clogging
in the nozzle, which could cause imperfections
and stringing.

4 Keeping the Filament Dry

Storage: Store filament in a dry environment,
preferably in sealed bags with desiccants.

Filament drying: If the filament absorbs moisture,
we recommend drying it at 80 °C for 3 hours to
ensure optimal printing conditions, but it's not
always essential.

5 Safety Precautions

Use the 3D printer in a well-ventilated room.
ASA fumes can be potentially hazardous
when inhaled.

6 Recommendations for Overhangs

For overhangs greater than 45°, we recommend
using smaller layer heights and ensuring enough
cooling time to prevent deformation of the
overhangs.

7 Vase Mode

When printing in vase mode, choose an extrusion
width of at least 0.8 mm. Lower the print speed and
increase cooling for better results. A preheated
chamber is required.

8 Acetone Smoothing

ASA filaments can be smoothed with acetone,
which helps refine the surface and remove minor
imperfections.

9 Supports

For the best print results, especially for complex
models, we recommend using supports made from
a different material (e.g. HIPS is suitable) to improve
print quality and make support removal easier.

ARE YOU MISSING THE RIGHT ANSWER?

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At Fillamentum, we go beyond achieving a lower filament diameter. We focus on
CPK (Process Capability Index) could be known as a Sigma within Industry. It is a crucial
measure that ensures every spool of filament meets the highest standards. Here is
Why CPK is essential for you and why it is more important than just diameter.

WE PROVIDE FILAMENT INSPECTION

