

PRINTING THE PARTS – PRINTING PROFILES

You may wonder why this 3D model is suitable exclusively for CURA right?

The most important thing about small RC model airplanes is always the ratio of size to weight. The lighter a model is, the better its flight characteristics and also the flight time is significantly increased ...

With our unique design process, we manage to make weights relevant items in a **true 1-wall printing process** for the outer skin but also for the filling offer. So we save weight while maintaining the necessary stability.

Here we show you how to get started from a standard CURA profile Make settings. For this model we only need 4, easy to create profiles.

It is **absolutely necessary** to observe the information provided by **PLANEPRINT.com** in order: to slice the component correctly. However, it may make sense to perfect your 3D printing by additionally performing several printing activities depending on your printer and the filament used.

IMPORTANT FOR THE 1-WALL-PRINT!

In order to print airfoils of the lowest possible weight with high stability, it is necessary to print with only one wall line (Nozzle 0.4 mm). Decisive here is the adhesion between the layers! To achieve this, you must print at a much higher temperature than normal. As a **guideline**, 230 ° C is a good starting point. The parts-cooling fan should be set to 0% or a maximum of 20%. Since not every printer works the same, it may be necessary to make small adjustments to these settings.

PROFILE P3_SURFACE

QUALITY

- Layer Height 0,25 mm
- Line Width 0,40 mm

SHELL

- Wall Line Count 1
- Top Layers 0
- Bottom Layers 0
- Z Seam Alignment Sharpest Corner or User Specified*

FÜLLUNG INFILL

- Infill Density 0 %
- Infill Pattern Grid

MATERIAL

- Printing Temperature (all)** 225-230 °C
- Build Plate Temperature ~60 °C

BUILD PLATE ADHESION

- Build plate Adhesion Type Brim

MESH FIXES

- Union Overlapping Volumes **NOT** Checked

SPECIAL MODES

- Surface Mode **SURFACE**

VERY IMPORTANT!

FINISHED! Save these settings under a new profile named **P3_SURFACE!**

* Aligning the components to the print bed allows you to position the Z-seam so that it runs along a component edge and becomes almost invisible.

** The high printing temperature is necessary in aircraft models to achieve a stable layer connection. The exact setting varies from printer to printer and must be determined by test prints

PRINTING TEST PROFILE P3_SURFACE

This file includes all the relevant challenges of our models in a small, quick-to-print, component. Test this file using the P3_SURFACE profile until you have a visually perfect and structurally solid component. Pay attention to the settings for retraction (the smaller the better), nozzle temperature, cooling fan setting, filament diameter, and print speed. You should experiment with small changes to these values to suit your printer. Finding the optimum profile settings is essential for the success of a perfect single-wall-component. Most importantly, there must be no under-extrusion or less than excellent layer-to-layer bonding.

