

# Troubleshooting: Warping

SOURCE:

<https://support.zortrax.com/troubleshooting-warping/>

## Table Of Contents

Warping

Platform Calibration

Platform Maintenance

Z-ABS Juice

Side Covers & HEPA Cover

Z-SUITE & Firmware Update

Z-SUITE Adjustments

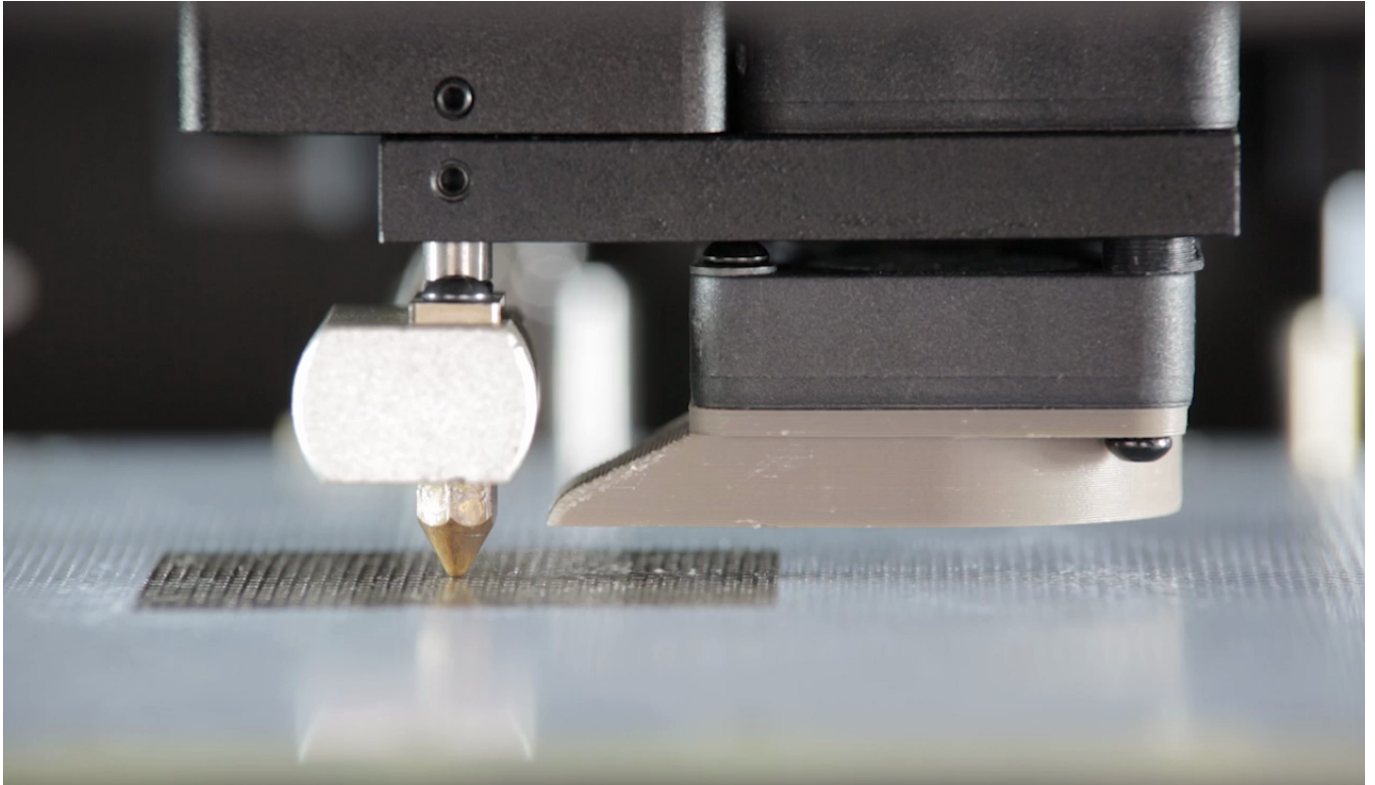
## Warping



The picture shows what a warped print looks like.

Generally, bigger models with a high infill level are more prone to warping. In such models there is more material that can shrink faster when the extruder has to make extended movements to lay down single layers.

## Platform Calibration



The first step you should take once your prints become warped is to calibrate the platform. This procedure helps you to properly level the platform which makes it less possible for prints to deform during the printing process. The instructions on platform calibration are available in this [manual](#).

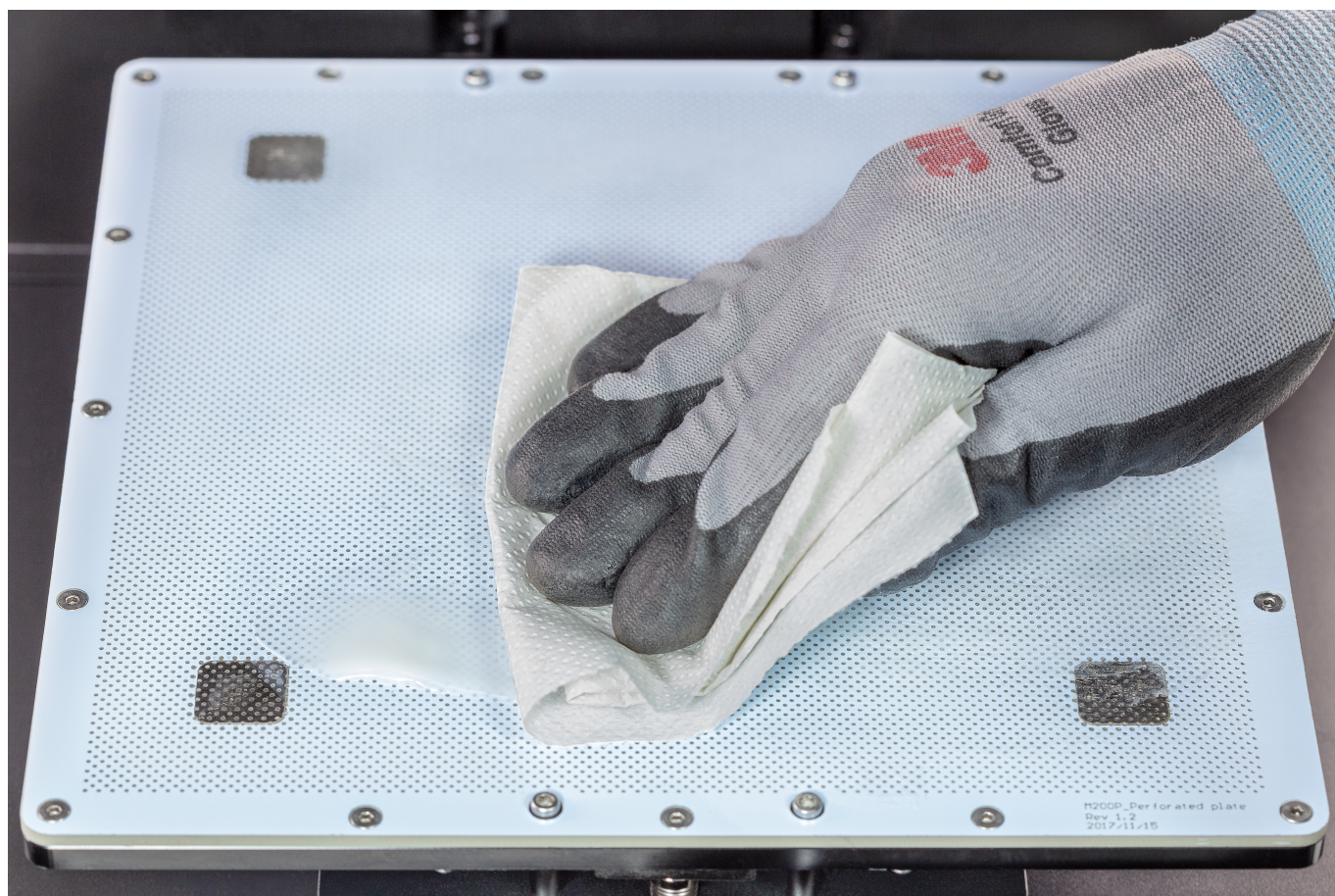
## Platform Maintenance



Platform maintenance is another procedure which improves adhesion in your printer. The instructions from the [maintenance manuals](#) will help you while dealing with adhesion problems and other printing issues.

Remember to calibrate the platform after completing platform maintenance.

## Z-ABS Juice

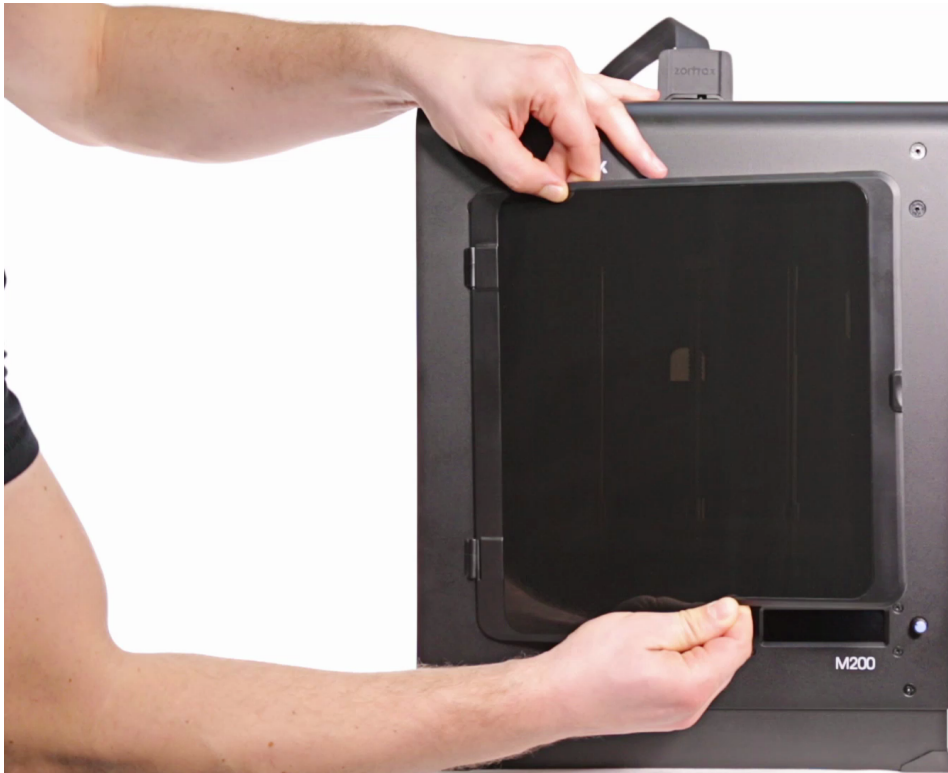


If you're still having troubles with platform adhesion, try coating the perforated plate with Z-ABS juice. It is a mixture of Z-ABS and acetone, which you can prepare on your own. See the [manual](#).

One coat of Z-ABS juice is enough to achieve proper adhesion for several prints.

Remember that Z-ABS juice has to be applied while the platform is heated. Turn the printer on and wait until the plate heats up. Then, using a piece of cloth, apply a thin layer onto the perforated plate.

## Side Covers & HEPA Cover



If you're unable to provide the proper temperature in the print room (between 21 and 28° C [70 – 82° F]), isolate the printing chamber from the surroundings by installing side covers and a HEPA Cover in your printer. These accessories improve the printing conditions and protect your prints from temperature differences, and at the same time, reduce the risk of warping. This [manual](#) provides instructions on how to install side covers in your printer and this [short film](#) explains all the features of the HEPA Cover.

# Z-SUITE & Firmware Update

The screenshot displays the Zortrax Support Center website. At the top, it says "zortrax SUPPORT CENTER" and "Support form Downloads". Below this is a search bar with the text "What can we help you with?" and a search icon. The main content area is divided into two sections: "Software" and "Firmware".

**Software**  
**Z-SUITE 2**  
The intuitive software for converting 3D files into models.  
[DOWNLOAD](#)

Other operating systems and previous versions >

**Firmware**

The firmware section features seven cards, each representing a different Zortrax model and its latest firmware version:

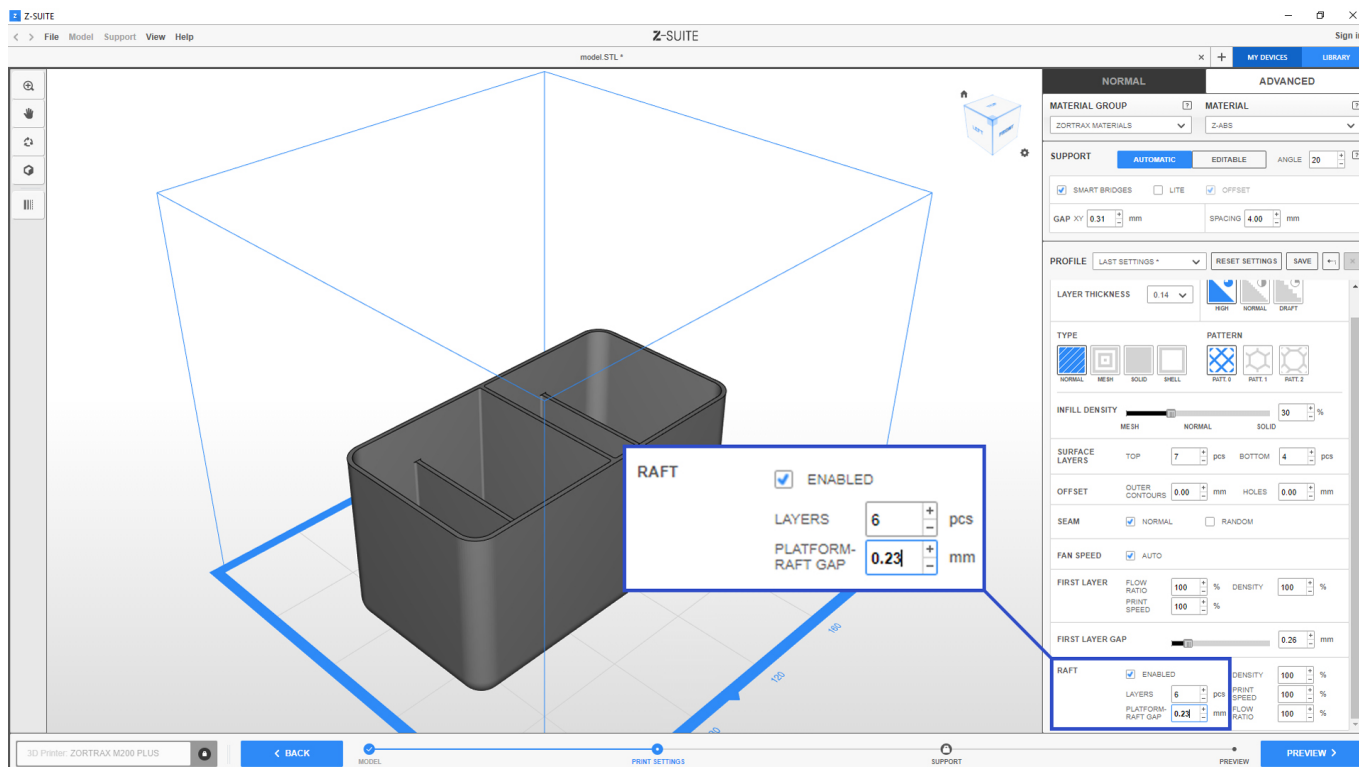
- Zortrax Apoller: The latest version of Firmware
- Zortrax Inkspire: The latest version of Firmware
- Zortrax M300 Plus: The latest version of Firmware
- Zortrax M200 Plus: The latest version of Firmware
- Zortrax Inventure: The latest version of Firmware
- Zortrax M300: The latest version of Firmware
- Zortrax M200: The latest version of Firmware

Sometimes warping can occur if the software version you're using hasn't been updated. This also applies to the firmware version. All software and firmware updates include fixes and printing quality improvements.

Always update the software and firmware in your device. You will find the latest updates in the [Downloads](#) section.

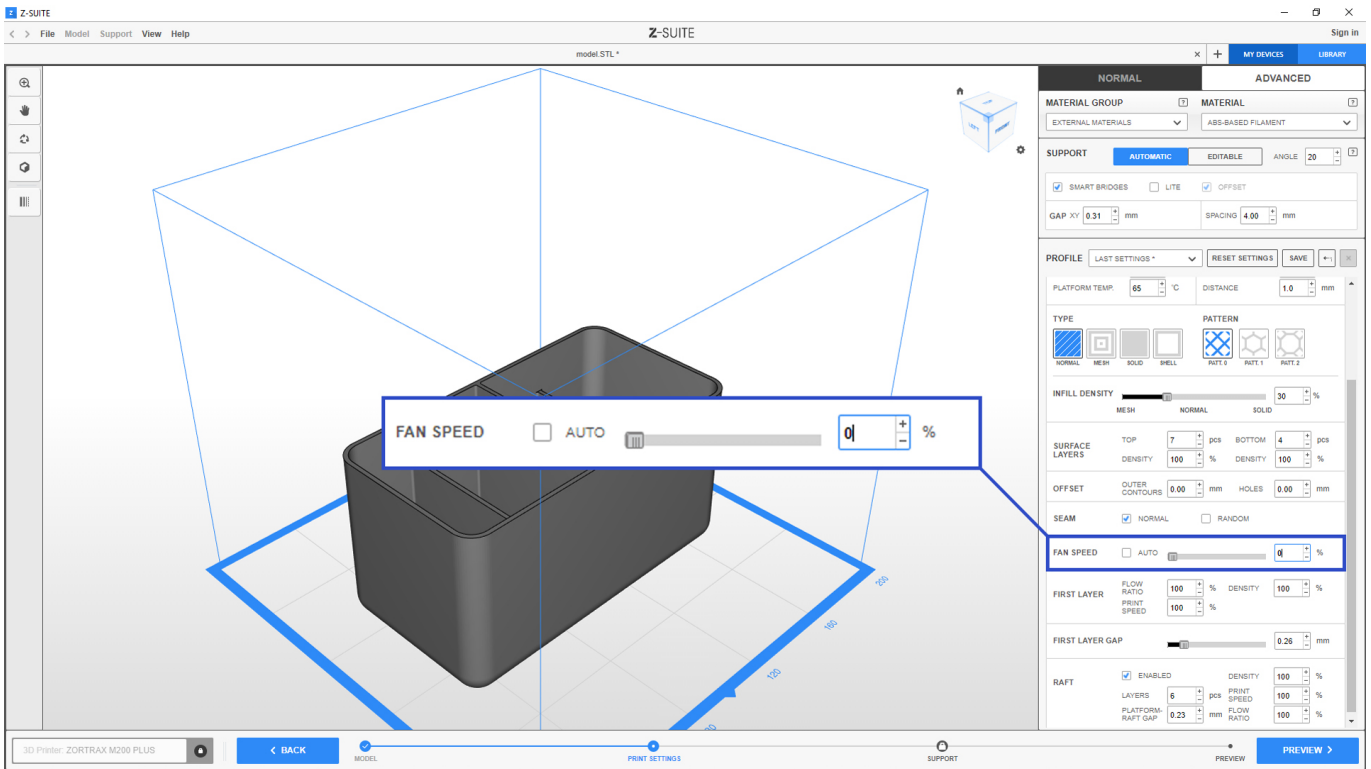


# Z-SUITE Adjustments

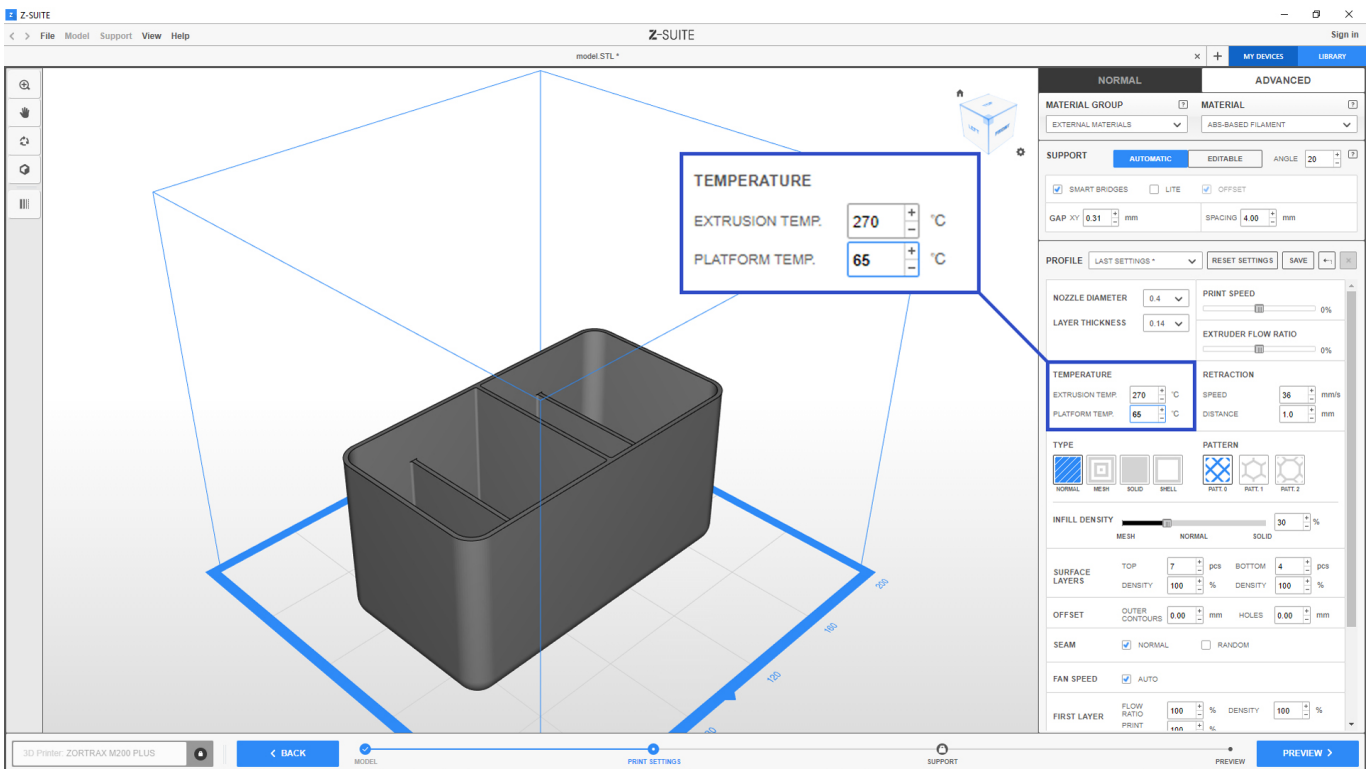


If the above measures do not help and you're still having adhesion problems, try one of the following Z-SUITE adjustments while preparing the model for printing:

Open the *Advanced* menu in the Print Settings step and decrease the *Platform-raft gap* value,

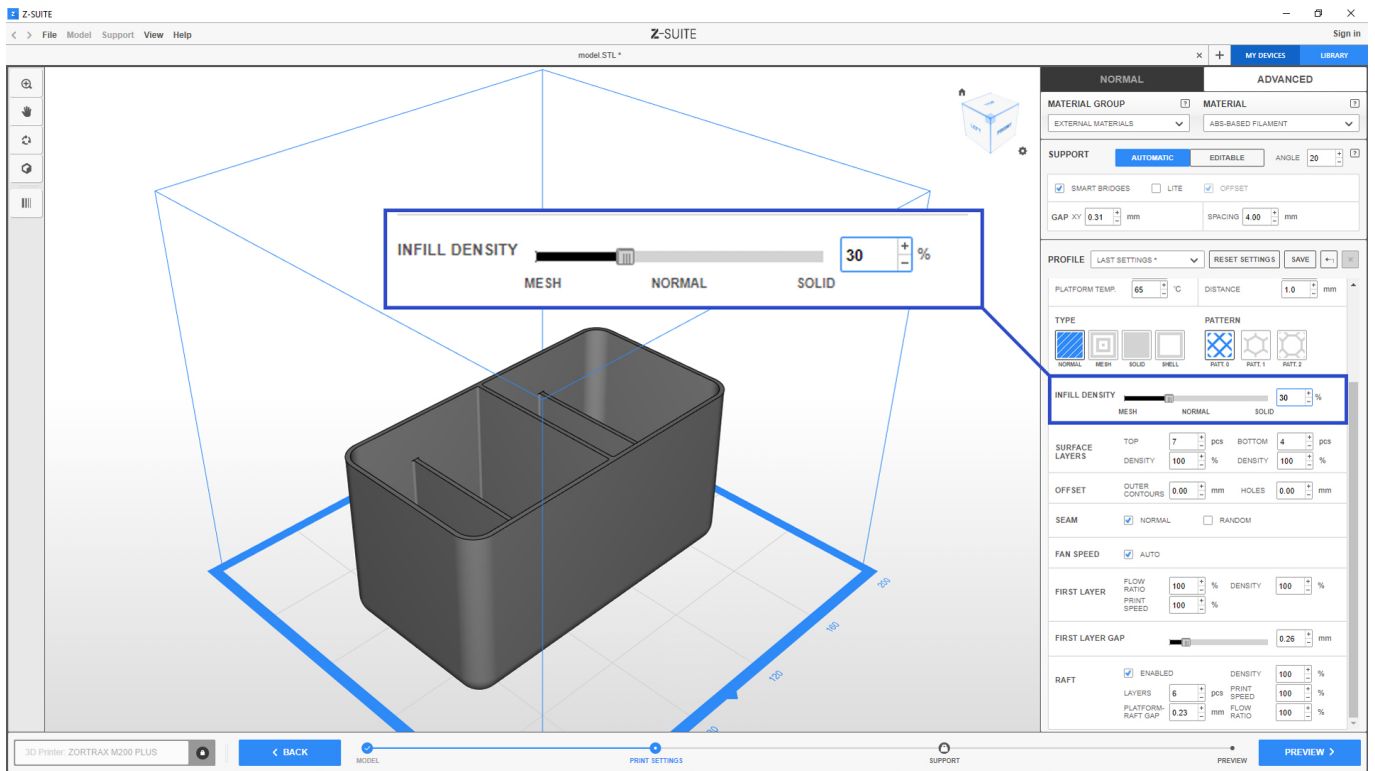


Open the *Advanced* menu in the *Print Settings* step and uncheck the *Auto* option, next reduce the *Fan Speed* to 0%,

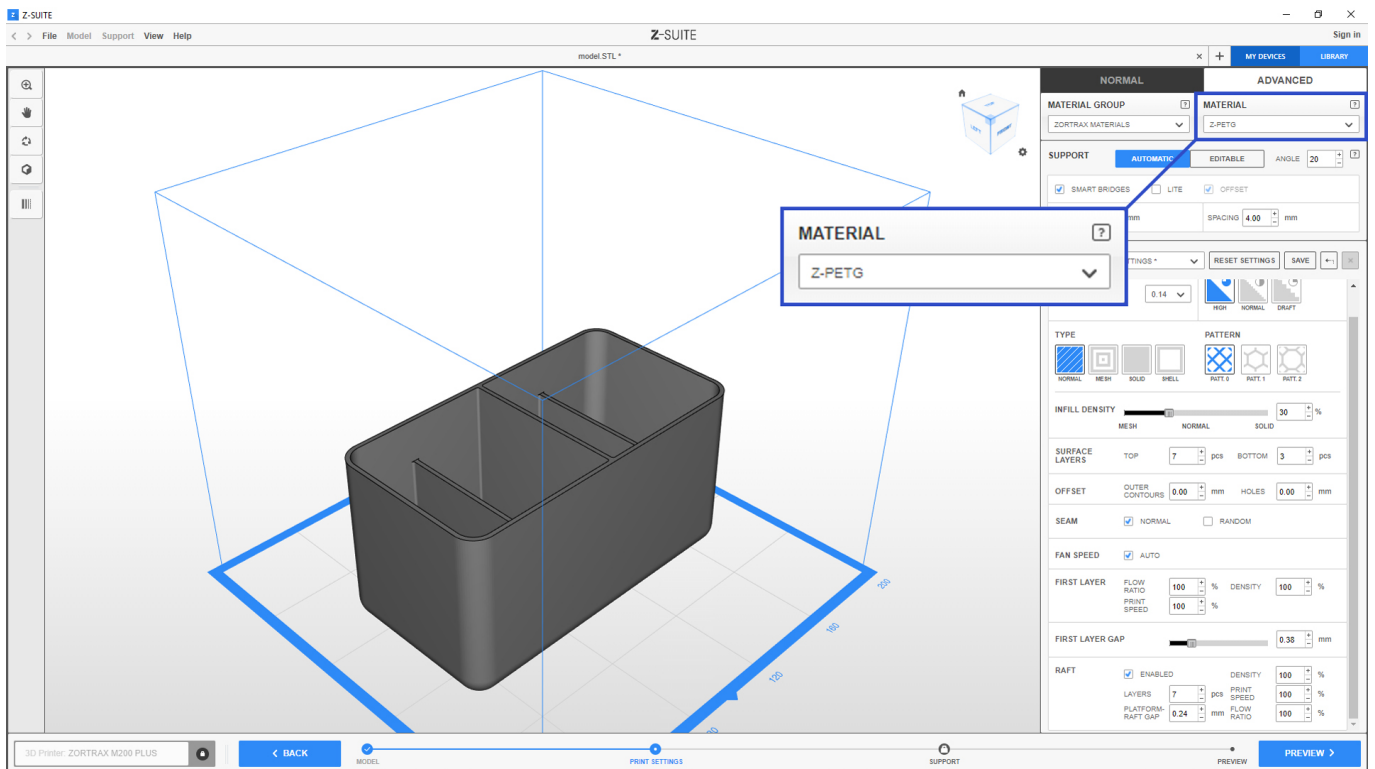


Increase the *Platform temperature*. This option is available in the *External materials* section in the *Print Settings* step. It is available for Zortrax materials and external

materials as well,



Decrease the *Infill density* value in the *Print Settings* step,



If adjusting the above settings does not help, try printing with a material of low shrinkage,

for example Z-PETG. Change the material type in the *Material group* section in the *Print Settings* step, and remember to change the spool before the printing process.