Troubleshooting: Warping

SOURCE:
https://support.zortrax.com/troubleshooting-warping/
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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 platform 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.
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.
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 environment 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.
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. In the Downloads section you will find the latest software and firmware versions.
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.