

Demonstration 04 – Panel for bar table

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Printed by: Tampere University of Applied Sciences

This demonstration is a front panel for bar table.

Part was printed in horizontal orientation. Geometry was optimized for large format AM.

Sulapac Flow 1.7 has 72% USDA certified biobased content with wood from industrial side streams and biodegradable biopolymers. It also meets EU and US FDA requirements for food contact materials. More information can be found from <https://www.sulapac.com/3d-printing-material/>.

The material reacts quickly to humidity and is susceptible to warping when cooling down during the printing process in typical industrial hall conditions without chamber. Warping typically becomes a problem when printing long, straight features with insufficient fastening points to print bed. When printing large structures, it is important to ensure good adhesion to print bed, preferably with mechanical fastening.

Possible warping issues were avoided by redesigning the part for FGF process, using additional fixtures to ensure bed adhesion and adjusting the printing speed to keep the process in stable layer time regardless of the path length.

Print info

Material: Sulapac Flow 1.7
Dimensions: 1600 x ? x500 ?
Weight: 12 kg
Print time: 4 h 35 min
3D-modeling: Rhinoceros
Slicing: Adaxis AdaOne
Extruder: CEAD robotextruder
Robot: ABB

Nozzle size: 6 mm
 Layer height: 3 mm
 Wall thickness: 6 mm
 Print speed: 40 mm / sec

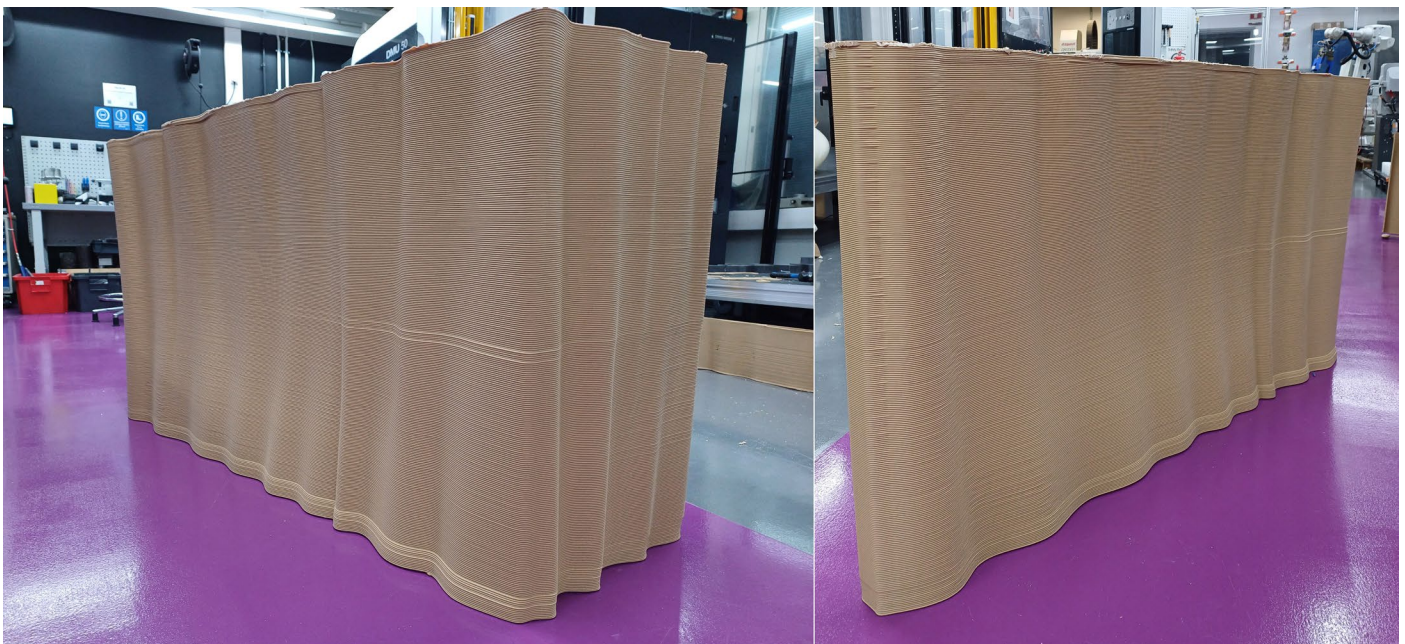


Figure 1. Slight warping issues are visible on the first few layers of the print.