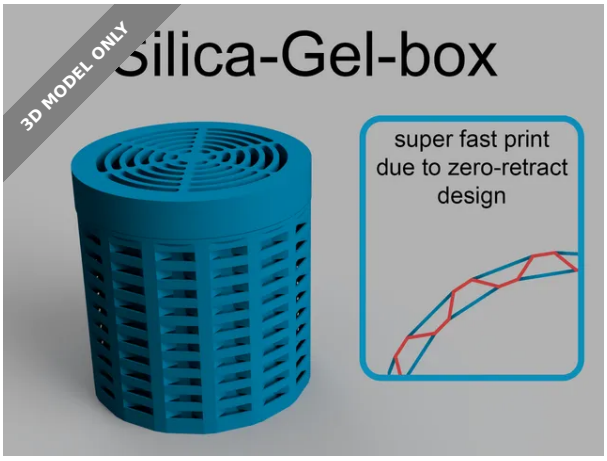


Silica-Gel-box (spool-container, optimized for super fast print)

3D_Workspace

VIEW IN BROWSER

updated 6. 4. 2025 | published 6. 4. 2025

Summary

no retract inside the walls, screw-lid, super fast print

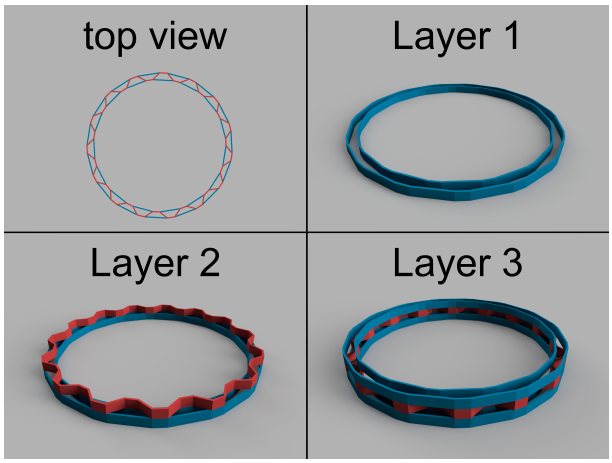
3D Printers > Accessories

Tags: spool silica desiccant silicagel filamentdrybox dehumidifier silicagelcontainer silicabox

These boxes are specially designed to be printed really fast and also to have as many holes as possible to let the wet air reach the silica-gel inside.

The screw cap is an easy and durable way to close the box and also open it again to dry the silica-gel. It should also be easy to print and if not please read the print instructions below.

construction:

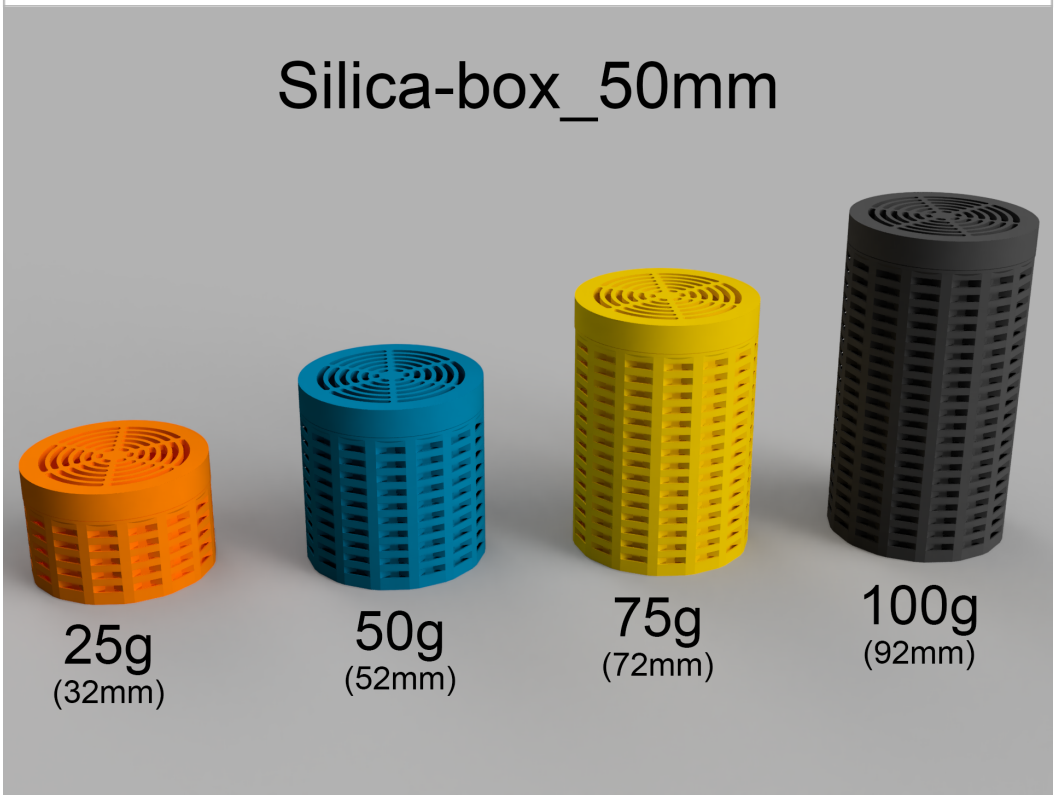


- The first layer consists of two 0.4mm thick lines which can be extruded without a single retract.
- The second layer is a single 0.4mm thick zigzag line. The bridging lines are all straight, so your printer does not have to print impossible curved overhangs.
- The third layer is similar to the first one except that this one already has bridging areas in it. These areas consist, like in the second layer, only of straight lines for easy bridging.

The air can still circulate throu the gaps between the layers and the zigzag-design creates a very strong wall even through the wall is just made out of a single extrusion line, on its weakest spot.

How to choose the right model:

Please read all the informations of the different versions to find the box that fits your needs the best before you download the model:



Silica-box_50mm

The boxes with a diameter of 50mm fit perfectly in the inside of most Filament spools. (for example: prusament, polymaker, SUNLU, Geeetech, zmorph, extrudr, 3DJake, ...)

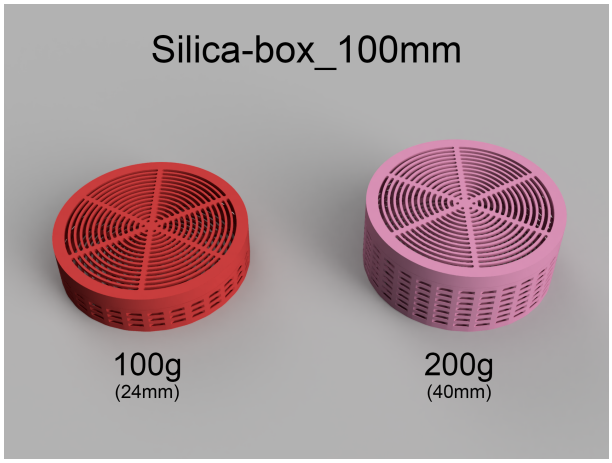
You can choose between 4 sizes:

- 25g (32mm high)
- 50g (52mm high)
- 75g (72mm high)
- 100g (92mm high)

Silica-box_100mm

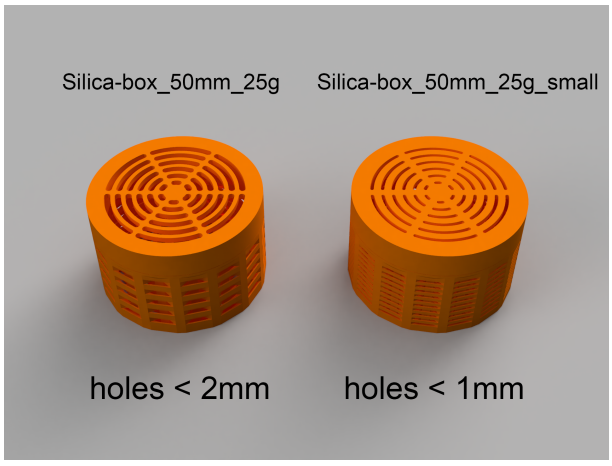
This box is much bigger but also really flat. It is made fto be used in big storage boxes and contains up to 200g of Silica gel beads.
You can choose between 2 sizes:

- 100g (24mm high)
- 200g (40mm high)



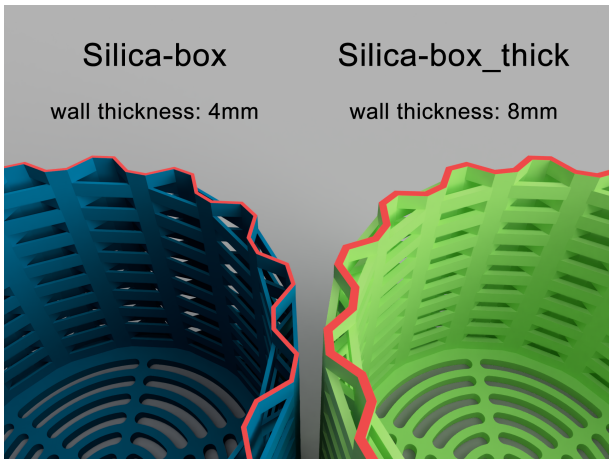
Hole size (regular or small):

The holes of the normal version are 2mm in size. This is small enough for normal Silica gel beads except for the broken ones. For that reason I made a version with holes that have a maximum size of 1mm from every box. This should keep most broken beads inside the box.



wall thickness:

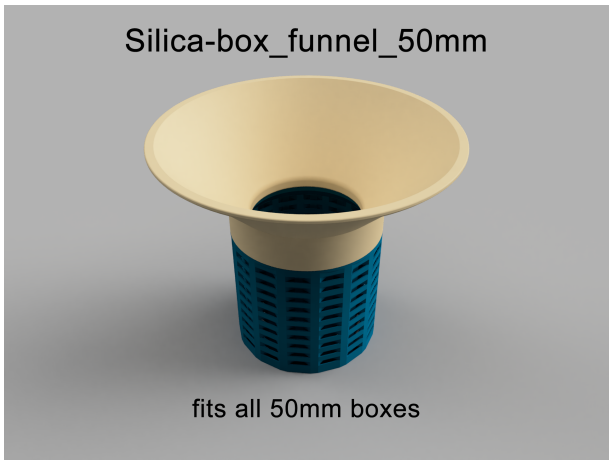
The normal Silica-box has a wall thickness of 4mm. It prints fast but isnt that durable. Thats why I added a new version of every box with 8mm wall thickness, so you can choose if you want it to be printed fast or durable.



Special parts:

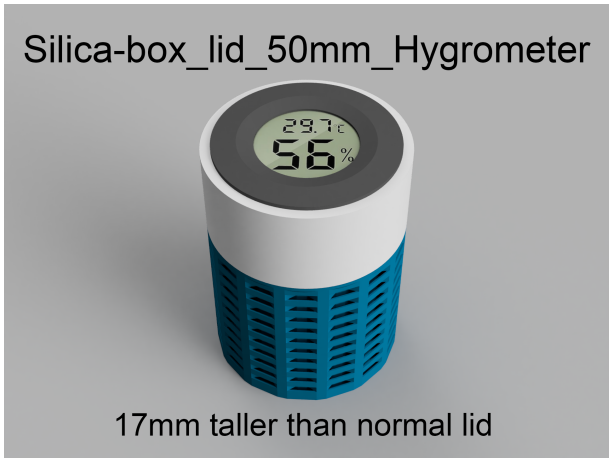
Silica-box_50mm_funnel

This funnel works with every 50mm box and can be screwed on to make it easier to fill them up.



Silica-box_lid_50mm_Hygrometer

This lid fits the popular round hygrometer. It is 15mm taller than the normal one. With the Hygrometer the total height of the box increases by 17mm.



print instructions:

You should print all the parts with a maximum layer height of 0.2mm to make sure the screw works just fine. In case you have any print issues try to turn off retraction or set the position of the z-seam to random.

If you use Bambu slicer:

Enable the "detect thin walls" setting. You can find this in the settings for strength under walls.

The default wall thickness in Bambu slicer is 0.42mm but the walls of the box are just like the Nozzle only 0.4mm thick. Without this setting your are not able to slice the middle part at all.

Thanks for downloading and happy printing!

Model files

Silica-box_50mm 5 files

silica-box_lid_50mm.stl

silica-box_50mm_25g.stl

silica-box_50mm_50g.stl

silica-box_50mm_75g.stl

silica-box_50mm_100g.stl

Silica-box_50mm_small

5 files

silica-box_lid_50mm_small.stl

silica-box_50mm_25g_small.stl

silica-box_50mm_50g_small.stl

silica-box_50mm_75g_small.stl

silica-box_50mm_100g_small.stl

Silica-box_50mm_thick

5 files

silica-box_lid_50mm.stl

silica-box_50mm_25g_thick.stl

silica-box_50mm_50g_thick.stl

silica-box_50mm_75g_thick.stl

silica-box_50mm_100g_thick.stl

Silica-box_50mm_small_thick

5 files

silica-box_lid_50mm_small.stl

silica-box_50mm_25g_small_thick.stl

silica-box_50mm_50g_small_thick.stl

silica-box_50mm_75g_small_thick.stl

silica-box_50mm_100g_small_thick.stl

Silica-box_100mm

3 files

silica-box_lid_100mm.stl

silica-box_100mm_100g.stl

silica-box_100mm_200g.stl

Silica-box_100mm_small 3 files

silica-box_lid_100mm_small.stl

silica-box_100mm_100g_small.stl

silica-box_100mm_200g_small.stl

Silica-box_100mm_thick 3 files

silica-box_lid_100mm.stl

silica-box_100mm_100g_thick.stl

silica-box_100mm_200g_thick.stl

Silica-box_100mm_small_thick 3 files

silica-box_lid_100mm_small.stl

silica-box_100mm_100g_small_thick.stl

silica-box_100mm_200g_small_thick.stl

silica-box_lid_50mm_hygrometer.stl

silica-box_funnel_50mm.stl

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