



Breathable Desiccant Dry Box



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Summary

A simple desiccant dry box that allows airflow in and out but stops the silica beads escaping. Secure with rubber bands.



1.96 hrs



1 pcs



0.30 mm



0.40 mm



PLA



29 g



Prusa
MK3/S/S+

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Tags: [box](#) [dessicant](#) [breathable](#)

Breathable Desiccant Dry Box

I am making a dry box to store and feed filament from into my printer and I could not find a box suitable to keep the desiccant in while it does its magic.

I read you can make a suitable box by using a tight gyroid infill and disabling vertical and horizontal shells. The infill is fused together and the gaps in the infill allow air in and out but are too small to allow the desiccant beads to escape.

Use the included gcode or roll your own using the provided 3MF files.

3MF File

Resize your desired box shape, ensure that you choose gyroid infill and disable vertical and horizontal shells when generating the gcode. the % infill will depend on the size of your desiccant beads. 30% worked well for me.

0.3mm draft layer height is ideal and it prints quickly.

The lids just sits on top with a lip, you will need a couple of rubber bands to hold it on to prevent spills.

!! Warning !!

When your desiccant needs to be recharged (usually it changes colour), you must remove it from the box before you attempt to dry it.

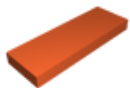
Spread it onto a metal tray to dry in an oven at 60° degrees Celsius for 6-7 hours or 120° degrees Celsius for one to two hours

Do not put the box in an oven above 60° degrees Celsius otherwise it will deform and melt.

!!! Warning !!!

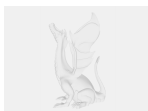
Do not eat the forbidden caviar or breathe its dust. Silica desiccant is not a toy, do not leave it within the reach of small children.

Model files



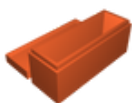
lid.3mf

 lid



body.3mf

 body



box.3mf

 3MF Project file

Print files



box_03mm_pla_mk3s_1h58m.gcode

🌀 PLA 🌀 0.40 mm 📏 0.30 mm ⌚ 1.96 hrs ⚖️ 29 g 🖨️ Prusa MK3/S/S+

📄 gcode

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