

## Silica Gel Container Lid with Hygrometer - with added spacing and barrier

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### Summary

A modified version of the original hygrometer lid, with a barrier and some distance to the hygrometer

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Each time I take out a spool of filament and forget it has one of the silica containers in it, I drop it, the hygrometer will pop out and silica gel will be spilled in each ever-so-small crevice of my floor.

This is my attempt at fixing this by adding a small barrier similar to the floor of the container between the hygrometer and the silica gel. The barrier is deliberately designed a bit weird so that slicers will create a good anchor for the bridge.

## Development Notes

The original thread was hard to copy, so I tried to approximate it as good as possible:

- Original outer diameter is  $\sim 44.87\text{mm}$
- Thread Angle is  $\sim 69.5^\circ$  (careful, that's non-ANSI and non-ISO)
- Root factor  $\sim 0.08431$ , Tip Factor  $\sim 0.271662763$
- Thread Pitch is:  $4.27\text{mm}$

This lid uses a  $45\text{mm} \times 4.27\text{mm}$  Thread with a  $69.5^\circ$  angle. I've increased the Tip Factor to 0.35 and decreased the root factor to 0.05 and added an internal offset of 0.1mm so the threads fit together nicely.

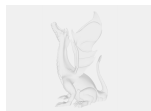
## This remix is based on



### **FAST Print In-Spool Desiccant (Silica Gel) Container with Hygrometer**

by PsychProd

## Model files



**silica-container-lid-hygrometer-v22.step**



**silica-container-lid-hygrometer-v22.stl**

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