

Making a set of unique homeware props with Chalk Studios

Professional Case Study



From design to physical form in one day

Chalk Studio were able to get their first iteration of the object in the same day as receiving the proposed design.

A challenging two-part mold made simple

By creating two 'nested' vacuum formed molds, they were able to make more complicated shapes than usual.

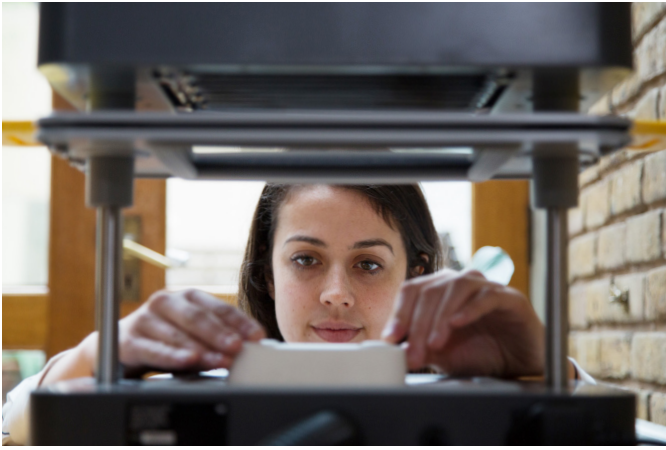
Multiple materials and colors

Due to the ease of repeatability opened up by the creation of multiple two-part molds, they were able to make an entire set of objects in a wide variety of colors.



“By 3D printing a master model and creating a 3D two-part mold using the FormBox, we were able to efficiently create a set of soap dishes that fitted the clients needs perfectly”

Chalk Studios



Chalk Studios are an independent design and model making agency based in London. They design and produce custom physical models for a wide variety of clients across the globe.

Chalk Studios were briefed by a client to make a set of custom soap dishes for an upcoming photo shoot. The client needed a batch of the soap dishes made in a variety of different materials in a short time frame.

Chalk Studios opted to use a combination of SLA 3D printing and the Mayku FormBox in order to quickly produce a set of models out of Jesmonite - a great casting material available in a variety of colors.



The Challenge

For Chalk Studio, making one object like a soap dish is fairly simple with a 3D printer, but making a small batch (100 pieces) with a factory is neither necessary or practical. The challenge lies in making a batch of objects (10-20) without having to invest in expensive and time-consuming tooling processes.

As the soap dish design had a cavity on the top face and detailing on the bottom face, it was not something that could be molded in an open face mold. It would require a new solution in order to achieve the required form.

The design conscious client was interested in seeing a variety of colour options for the soap dish prior to the shoot. 3D printing multiple parts and then finishing them in different colors would be extremely expensive and time-consuming.



The Solution

Chalk Studio 3D printed the master model of the soap dish using the highly accurate SLA 3D printing process. Using this model, they were able to vacuum form multiple molds using the FormBox. These were 'two-part' molds, which means one would nest inside the other and enable Chalk Studio to create more complex shapes than a single mold would allow.

The soft tooling process of silicon molding uses two-part molding. However, making one mould using this process is time consuming and costs a lot of money just to make one mold. Having just one mold means you can only cast one object at a time. Using the FormBox to make several two-part molds enabled Chalk Studio to cast multiple objects at the same time.



These two-part molds could then be reused multiple times so a wide selection of colours and finishes could be provided to the client at no extra cost.

Cost Comparison

	External Vendor	Mayku FormBox
Setup cost	£4500	£599
Part cost	£35	£1
Prototyping time	2-3 weeks	8 hours of 3D printing
Production time	4 weeks	1 day

