



Rubber Mold Making

Purchase Materials: Reynolds Advanced Materials - <https://www.reynoldsam.com/>


SILICONE RUBBER

Rebound 25 (Platinum Cure Silicone) – I use this for most of my silicone molds, it is brushable or pourable, and easy to measure for mixing in 1:1 ratio by volume or weight. I use this for molds of all sizes, but I prefer it for larger molds since you can pour or brush it to cover more surface area. No release is needed on most objects unless they are made of silicone rubber themselves. [How to Use Rebound 25](#).

THI-VEX (thickening agent for platinum silicones) – I use this to thicken the silicone mixture for brushing molds. Once you do the first layer or “print coat” of the silicone, you can add this material to thicken the mixture for subsequent layers and build them up more quickly.

 A photograph showing a thin, translucent layer of orange silicone being brushed onto a dark, ornate metal mold. The silicone is very thin and appears to be just starting to cover the surface.	 A photograph showing a thick, textured layer of orange silicone on a dark surface. The silicone is applied in a way that it stays in place and has a peanut butter-like consistency.
<p>“Print Coat” or first layer of silicone on a brush mold, no THI-VEX is added here. This is very thin as most of the rubber usually runs off the form. However, it is essential to capture the details first with this thin layer.</p>	<p>A brushed mold after the final layer of silicone using THI-VEX. This is usually a thick consistency like peanut butter that has to be troweled on and stays put, not running off the piece.</p>


Equinox 38 (Silicone Mold Putty) – I use this for small press molds but mostly for texture mats. It is great for pressing into a pancake and taking impressions from various textured surfaces. Because it is silicone, it doesn't stick to anything except itself, and no release is needed. [How to Use Equinox Putty](#).

 A photograph showing two slabs of purple silicone putty pressed onto a piece of rough, brown tree bark. The putty is being used to create texture mats.	<p>Equinox Putty slabs pressed onto a piece of tree bark in order to make texture mats.</p>
---	---

Universal Mold Release Spray – I use this on any items that I am worried about sticking to silicone mold material, or for spraying silicone molds before casting resin in them etc. Not much sticks to silicone but itself, however, it can mechanically lock to porous materials like unfinished wood. When in doubt, use this release before molding or casting.

***Note:** There are different numbers for each series of material that correspond to different products within that series Ex. Rebound, 25 and Rebound 40). Numbers listed here are my preference for mixing times, etc.

Using Silicone Molds with Clay – I recommend using cornstarch as a release when pressing wet clay into silicone molds. I put mine in an old sock that acts as a pounce and dusts the molds before pressing. Corn starch burns off and leaves no residue on the clay or molds. Clay also releases easier if it is stiffer, so let your pressed clay stiffen a bit before attempting to flex it out of the mold.

	<p>Corn Starch pounce, dust mold lightly. You can turn it over and tap out excess corn starch, it only needs a thin layer.</p>
	<p>Pressed coil of clay into the mold, allowing for excess. Press well to get a good impression and avoid air pockets and pressing texture.</p>
	<p>Scrape off excess clay and level with a stiff rubber rib. Allow clay to stiffen in the mold before flexing the rubber to remove. Turning the mold upside down and flexing the piece out onto the table is a good technique for removal.</p>

MOTHER MOLDS

Many silicone molds, especially larger ones, need a hard shell or ridged material on the outside to support the rubber and have it hold its shape after the original is removed. You can see the way the silicone mold sits in the mother mold in the image below.



Free Form Air – This is my preferred mother mold material. It is a kneadable epoxy dough that can be easily mixed with equal parts of A and B. It is also very lightweight and durable once set. This material can be used for a lot of other artistic purposes, but I only use it for making hard shells for molds.

Sonite Wax – This is my preferred release for Free Form Air. Epoxy doughs will stick to silicone molds and other surfaces if you do not use a release. Sonite wax is easily brushed on the surface of the mold and surrounding edges to keep epoxy dough from adhering to them.

1. Finish brushing all layers of your silicone mold and allow the silicone to set up completely. Cut the edges of your mold with an exacto to clean up the outside perimeter.
2. Brush with sonite wax and rub into the surface and surrounding ½-1 inch around the mold.
3. Mix Free Form Air and pancake into a thin sheet over silicone mold. Smooth with rubbing alcohol if needed. Dried epoxy can be sanded to take off rough or sharp spots.

[Link to article for making a two-piece silicone mold with epoxy mother mold.](#) Large, one piece silicone mold with epoxy mother mold

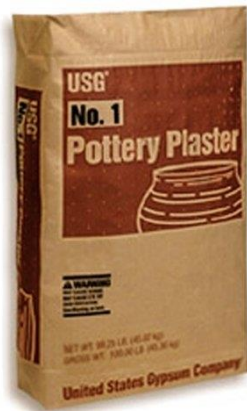
Don't want to make your own silicone molds? Commercial fondant and jewelry molds work great too! Use the same corn starch release system for these molds.

Plaster Mold Making

Purchase Materials: Pottery supply store. I use [Trinity Ceramic Supply](#) in Dallas, TX.

Pottery Plaster No. 1 – This is my preferred plaster for making molds for slip casting. It is important to use the right kind of plaster for slip casting. I also use this plaster to make hump molds, press molds, and drying slabs for reclaim, as it has the best absorption rate for clay.

Murphy's Oil Soap – This is my preferred release agent for plaster. It is cheap and easy to find at any hardware store. Brush the first part of a mold generously and rub it into the surface. Apply at least 3 coats before pouring the next part of your mold.



[Guy Michael Davis Demonstrates Plaster Mixing](#)

Resource: [The Essential Guide to Mold Making & Slip Casting by Andrew Martin](#)

Top Tips for Making Plaster Mold Making:

- Always mold leather hard clay originals. Molding bisqueware or fired clay is always risky as it is very ridged, or porous. It is easy to get stuck in the hardened plaster and have to break your mold to remove. Leather hard clay is much easier to work with during set up and allows for easy removal from the plaster once it is set. Avoid rigid materials like glass, it is better to use plastic or rubber originals.
- Use a release agent on your plaster buckets. I use general motor oil and wipe a small amount of it around the bucket walls with a paper towel before adding water to the bucket. Leftover plaster will flex out of the bucket easily once dry and leave your buckets cleaner much longer.
- Coddle Boards – You can make your own using cheap melamine shelving cut into smaller boards and adding plywood stops. Unfinished wood coddle boards need to be sealed and take longer to make. Plastic storage tubs make great coddles for one piece press molds or sprig molds. Use some wet slip to attach your pieces to the bottom before pouring your plaster.

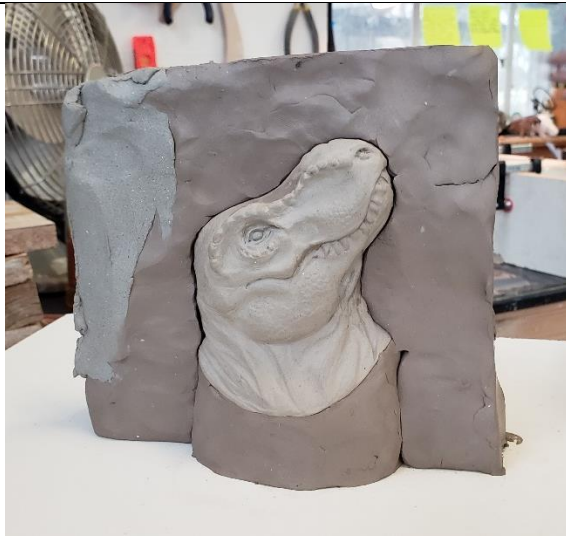
Ariel Bowman

www.arielbowman.com

arielbowmanceramics@gmail.com

@ariel.bowman

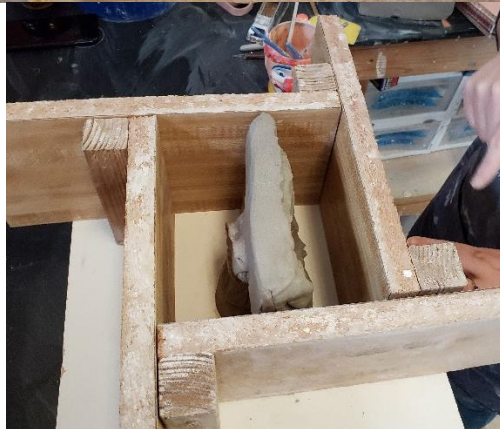
2-Piece Plaster Mold for Slip Casting



Use wet clay slabs to make a wall or border around one side of your original up to the midline. Draw a line around the highest point of your piece from front to back. Make sure your wall goes against this line on your original to avoid undercuts. The wet clay should not stick too badly to your leather hard original and be easily removed without damaging the original during the mold process. Refine your edges with a brush and water or a rib to close the gaps around your original.



Make sure the wall of clay fits tightly up against the walls of the coddle boards. It is best to have about 1.5-2 inches all the way around your piece. Leave at least 2-3 inches between your piece and the outside wall if you are looking at it from above.





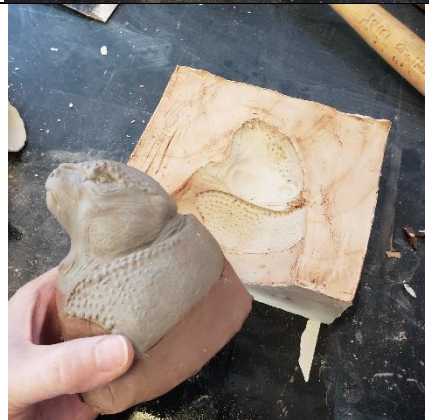

The thickness of the plaster around your original determines how much moisture is drawn from each piece as it casts. Therefore, you want to make equal distant space around your piece that will draw moisture evenly, with enough thickness in the plaster mold to cast your pieces quickly.

Ariel Bowman

www.arielbowman.com

arielbowmanceramics@gmail.com

[@ariel.bowman](https://www.instagram.com/ariel.bowman)

		<p>Clamp boards together around your piece. You can put clay coils along the bottom of the boards to avoid accidental leaks. Mix and pour your plaster to fill the void against the wall and cast one side of your original.</p>
		<p>Removing the initial clay wall from the first part of the mold once the plaster has set. This is no longer needed now that we have the first piece of the mold.</p>
		<p>Removing the original from the first piece of the mold, wrap in plastic and set aside. Keep it leather hard throughout the process of making the mold.</p>
		<p>Cleaning up and flattening bumpy areas with a surform rasp. Avoid the edges of your original so you don't distort the seamline.</p>

Ariel Bowman

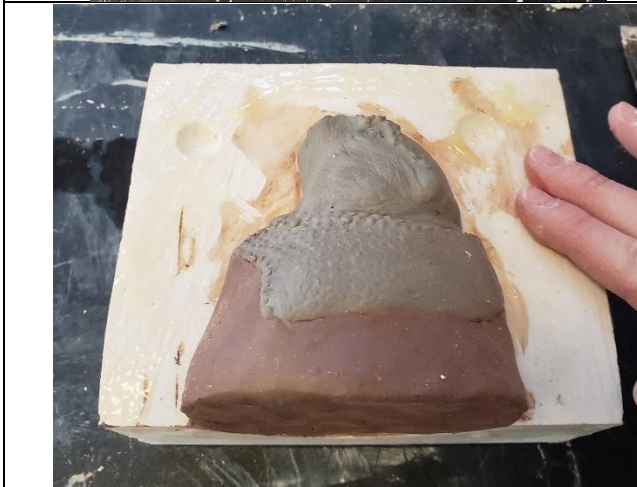
www.arielbowman.com

arielbowmanceramics@gmail.com

[@ariel.bowman](https://www.instagram.com/ariel.bowman)



Making "button keys" in the first piece of the mold using a drill and a screw eye as a drill bit. Only drill to the halfway point on the round part of the screw eye. If you drill too deep you can create a lock instead and your buttons may break off when you separate the parts of your mold.



Rubbing in Murphy's Oil soap as a release agent. 3 good coats brushed on and rubbed into the surface of the plaster until it is absorbed. Rub some around the edges of the outside of the mold to in case of overflow on the sides.



Part 1 is now keyed, soaped, and coddled and ready for part 2 to be poured on top.