

## Molded Resin Dummy Eggs

Molded resin dummy eggs are an accurate, incredibly durable and easily produced alternative to natural-shell, plaster-filled dummies. Detailed basic steps for making molded resin dummy eggs are as follows.

### Choosing a Container for Making the Mold

The only critical requirements for the container are that it be large enough to hold the egg to be duplicated with a minimum of  $\frac{1}{4}$ " and maximum of  $\frac{1}{2}$ " clearance over the entire surface of the egg (above, below, and around the periphery). If the egg fits too tightly in the container, the walls of the mold will be too thin and weak while too much space around the egg will waste mold-making compound and make it tricky to cut the egg out of the mold. Because the egg surface is circular in cross-section, round containers are useful as molds but not absolutely necessary.

Sections of PVC pipe (schedule 40, not 20) work well as do pill bottles or specimen cups with the bottoms cut off (Figure 1). Plastic beverage cups will also work for larger eggs and small soufflé cups for smaller ones. When using a container with a bottom (i.e. pill bottle, drinking cup, etc.) make the mold in the cup and then cut around the bottom with a Dremel tool with a single cut down the side to remove the hardened mold. If using a tube of some sort (i.e. PVC pipe), cut the tube down the side and then set it on a flat, non-porous surface so that it sticks up like a smoke stack. Secure the tube flush with the surface using tape or hot glue around the bottom to prevent the mold-making compound from leaking. For the tiniest eggs, 1 oz plastic soufflé cups with sloped edges can be used (Figure 2). In this case, the mold can usually be popped in and out without the cup needing to be cut.



Figure 1. Examples of dummy egg mold containers.

Figure 2. A small plastic soufflé cup being used to hold a mold for small dummy eggs.

### Making the Mold:

Start with a clean egg with a relatively intact shell. Small holes or cracks can be patched with nail polish or glue. Use a hot glue gun to glue a screw to the fat end of the egg, pointing up. Do this with the egg at room temperature as water will condense on a refrigerated egg which will prevent the glue from sticking.

Mix the molding silicone compound according to instructions (MAKE MORE THAN YOU THINK YOU WILL NEED.) and using a brush or tongue depressor, paint a layer of silicone onto the egg (Figures 3 & 4). Either pour the molding compound into the container and then push the egg down into the silicone compound or suspend the egg in the container by clamping the screw in a clothes pin, then resting the clothes pin across the top of the container (Figure 5) and slowly pouring the rubber around the egg. Only pour the rubber until it barely covers the egg (Figure 6). Covering the screw head will make it harder to cut the egg out of the mold once hardened and also more difficult to fill the mold when you get to that step. Sometimes eggs tend to float out of the rubber so you may need to weigh it down. A pair of pliers laid on the clothes spin with the handles on either side of the screw serves this purpose well (Figure 7).

Alternatively, a section of tubing can be cut from a syringe and used in place of the screw. When using a syringe, either clamp the section of syringe in a clothes pin as normal or cut the section of an appropriate length that the other end can be glued to a tongue depressor and the egg will hang at the right level within the mold container (Figure 8). As with everything, be creative and use what materials you have available.

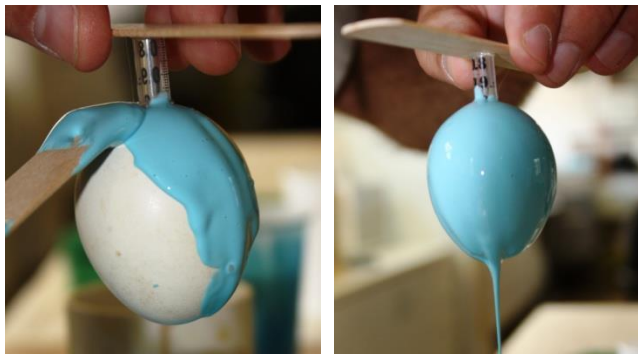


Figure 3. Painting the latex molding material onto the egg.  
Figure 4. Egg painted with a layer of latex molding material.

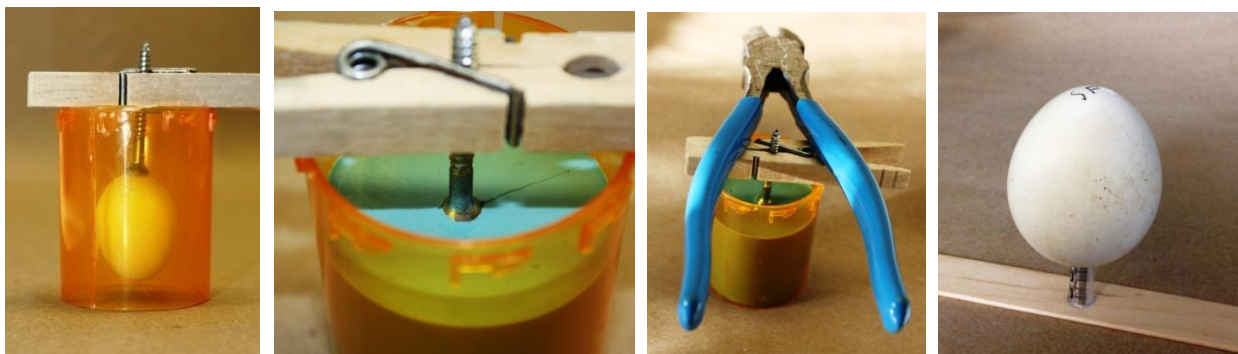


Figure 5. Egg hung into mold container with proper clearance in preparation for pouring molding compound.  
Figure 6. Finished mold showing the proper coverage of the egg to be duplicated.  
Figure 7. Pliers used to weigh down the egg during mold-making to prevent it from floating.  
Figure 8. Alternative method of hanging an egg using a section of syringe.

After the mold has set, use a knife to cut down one side, starting at the hole where the screw head is glued to the egg (Figure 9). Only cut down as far as necessary to remove the egg without breaking it if possible. Of course the mold can be rinsed out if the egg breaks but removing it intact is simpler. The hole in the top of the mold needs to be large enough so that resin can be poured into the mold smoothly without the stream of resin hitting the edges of the hole. The hole can be trimmed to be a bit larger at this point but keep in mind that a larger hole will leave a larger the nub to be cut/sanded off once the resin sets.

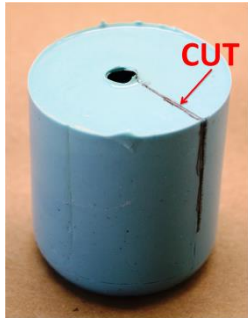


Figure 9. Finished mold showing where to cut to remove egg after the mold has set.

### **Molding the Dummy Egg:**

Put the finished mold back in the container that was used to make it, then line up the edge where you made the cut so that there will be less of a seam to sand down at the end. Before pouring the resin, it may be necessary to wrap either a rubber band or a ring of masking tape around the mold. Otherwise, if the walls of the mold are too thin, the weight of the resin may be enough to open it up and the resin will spill out through the cut in the side.

When mixing resin, follow the directions on the label. All of the products I have used have been two-part mixes mixed 1:1. The key to mixing resin is to do it quickly but thoroughly. If you take too long, the resin will start to set up before you finish filling the mold. If mixing is incomplete (Figure 10), the surface of the finished dummy will have sticky areas, so make sure to mix the components until there are NO SWIRLS (Figure 11)!



Figure 10. Two-part resin compound not fully mixed.

Figure 11. Two-part resin compound when fully mixed has no swirls.

Pour the resin slowly and let it overflow the mold (Figures 12 & 13) to reduce bubbles in the resin egg and to make the finished dummy egg easier to remove from the mold. While pouring, tap on the side of the mold to help bring bubbles to the top.



Figure 12. Pouring the molding resin into the mold through the hole in the mold.

Figure 13. Allowing the resin to overflow the mold reduces bubbles in the finished dummy egg and makes it easier to remove from the mold.

When the resin is dry, just peel it out (Figures 14 & 15) and then cut off/sand down the nub and any seam down the side (Figure 16).

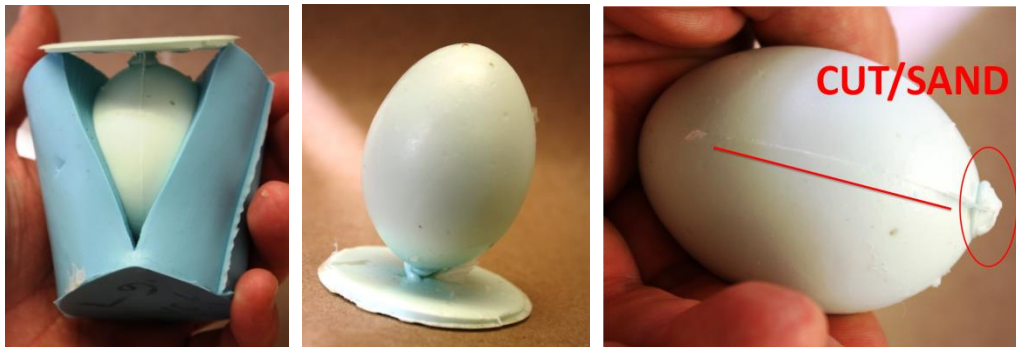


Figure 14. Removing the resin dummy egg from the mold through the cut in the side of the mold.

Figure 15. Molded resin dummy egg ready to be finished.

Figure 16. Molded resin dummy egg showing where to cut and sand off imperfections resulting from molding process.

## Dyeing the Dummy Egg:

If you want to make a dummy with a base color other than white or off-white, you can use resin dye from Alumilite. The dye is very concentrated, so if only making a few eggs, use only a tiny bit (less than one drop) to dye a batch of resin. Squeeze out less than a drop onto a tongue depressor (Figure 17) and then use the tongue depressor to stir the part of the resin that takes the dye (Part A for Alumilite Liquid Casting Plastic). Make sure to mix the dye in completely until there are no swirls of color (Figures 18 & 19), then use mix and pour the plastic according to instructions. If you are crafty, you can also paint your dummy eggs to mimic the markings of the real

egg. The dye will last for the life of the egg but painted features will wear off over time and need to be redone.

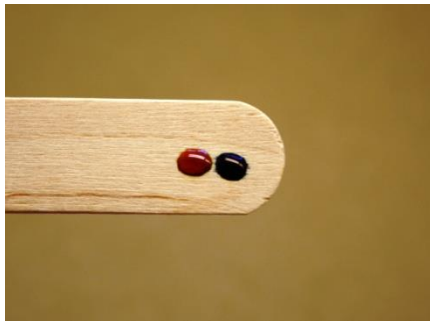


Figure 17. Drops of resin dye on a tongue depressor.

Figure 18. Dye and resin compound not fully mixed.

Figure 19. Dye and resin compound when fully mixed have no swirls.

### **Materials:**

<http://www.alumilite.com>

<http://aeromarineproducts.com>

<http://smooth-on.com>

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