

# Pewter Doll Project



# Molding

## Part one: Prepping the Mold Process

The doll torsos are hollow. We have to seal the arm and leg attachment areas. I used sculpture clay and aluminum foil. To fill the depressions. Both will hold up to the Molding material and process. Next step was to find a base to hold the mold during the next steps in the process. The base should be made of some kind of wood. At the top of the doll's torso. We made the mold's flume. This is where the molten pewter will be added. After the mold is completed. Make sure the flume is located at the top of the mold!



## Prepping: Step two The Base Layer

The next step is make the base layer for the mold. It is made of sculpture clay. The clay layer needs to be as thick. As one half of the thickness of the object. That you are making a mold of. The object being molded and the sculpture clay. Need to be on a solid base. That is at least a ½ inch thick. You will need this in the next step. To attach the cardboard walls. That will contain the poured mold material. This group doesn't have flumes. The flumes will be cut into the mold itself.



## Prepping: Step three Making Vents

The next step is to make cardboard walls that are attached to base. And any seams are sealed with tape. This will hold the molding material. Until it cures completely. Which is about twenty-four hours at least. Cardboard works best. Because foam-core will warp. From the mold's curing process. Make sure the object's flume is tight against the cardboard wall!

The last step is to make vent trees. Use a stiff thin wire. Plastic coated Wire works fine. But uncoated wire works the best. For removal at the end of the process. The wire should be pushed through the cardboard to hold it in place to the object. The vents will allow the air in the mold to escape. And the mold will fill with the molten pewter.



## Part two: Measuring the Molding Material

You will need the following items. A digital scale to accurately measure the molding material. A stainless steel bowl. I choose a deep one to allow room for mixing the molding material. I use silicon spatulas for the mixing. And rubber gloves to protect my hands. For the mold to hold up with the molten pewter. You need to use a two-part silicon/tin mold material. The large container is the molding material base. The smaller container is the hardener. You first need to stir the molding material in it's container. You need to mix well or the process will not work. You will need to use the digital scale for the next step.



Please understand each brand may have different proportions. For the base and the hardener! You need to follow their instructions. To start you need to place the empty mixing bowl on the digital scale. And then turn on the scale. Then zero out the scale. This will give accurate measurements of the materials for the mixing process. I use grams for the measurement of the two parts of the mold material. First, pour the well-mixed mold material base into the bowl. Stop at a even number weight. Next take the small container of the hardener. And shake it well. Then add the appropriate measurement of the hardener into the bowl. Stir well until the mixture is ready to add.

## Part two: Making the First Half of the Mold

After you complete the mixing the Molding material. You only have a short time to pour the first mold half. Have your walled mold boxes ready. Pour the mixture in a circular pattern. Pour first at the edges. Then go toward the middle. If there are vents. Be careful not to move them. Off the object.

Make sure that you have covered the object. With at least a inch thickness of molding material. At the highest

point of the object. I then use a hand held vibrator to force any air bubbles off the surface of the object being molded. Just place the vibrator to the each side of the mold box. Keep turning the mold box and pressing each side with the vibrator. To allow the vibration to destroy any bubbles. Do this for about ten minutes for each mold box. Then place the mold box to the side. And donot touch it. For at least 24 hours. You can then remove the cardboard walls. And remove the first part of the mold. Let that sit for another 24 hours. This will make sur the mold half is ready for the next step.



## Part two: Making the Second Half of the Mold

### Step one



The first thing you need to do after removing the first mold half. Is to clean all the sculpture clay from the mold half and the object you are making a mold of.

## Part two: Making the Second Half of the Mold

### Step two

You need to place the mold half. Back on wooden base. You used to make it. Then rebuild the cardboard walls. They will need to be higher than the first walls. Next make the vents you need. To remove any air pockets from the mold when we cast the object. The final step is to brush petroleum jelly onto the mold's surface. You will need an even coat. To keep the new pouring of the molding material from sticking to the first mold half. If you don't do this step. You will not be able to pull the halves apart!



## Part two: Making the Second Half of the Mold

### Step three

You need to repeat and follow the same steps. You did for the first mold side. Do not try to break the mold open. For at least two days. And wait a week before casting anything.

