

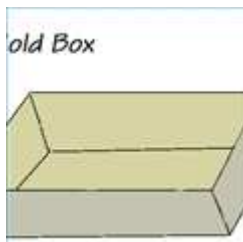
How to Make Lead Soldiers with silicon rubber RTV 689

Instructions Things You'll Need:

- Klean Clay
- Ladle
- Heat source
- Powdered silicone rubber mold making material
- Appropriate sized box to hold the mold
- Original figure
- Mold release solution
- Exacto knife
- Molding metal
- Rubber bands
- Fine sandpaper

Making the Mold

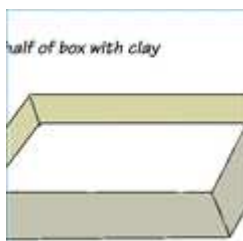
1. Step 1



You'll need a box for the mold.

Obtain or carve an original soldier from which you will create the mold. You can use toy soldiers you can purchase on-line or in local hobby stores or make original figures from clay or carve them from wood. Draw a "parting" line on the original with a marker to show where the mold will separate.

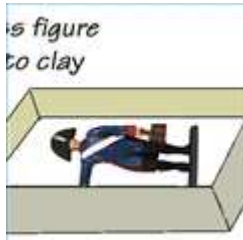
2. Step 2



Fill the box halfway with clay.

Make a box larger than your original and fill it halfway with a layer of Klean **degas** Clay molding compound or similar product.

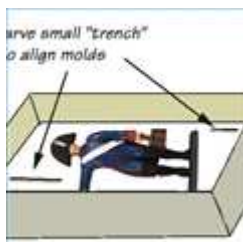
3. Step 3



Be sure the original figure is pressed down to the parting line.

Clean your figure with alcohol and dry it. Press the figure into the clay to the parting line. If the clay is too stiff, soften it in the microwave.

4. Step 4



Create alignment ridges in the clay.

Dig lines around the edge of the clay to help you line up the molds.

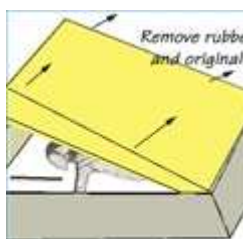
5. Step 5



Pour silicone rubber mold over figure embedded in clay.

Mix and pour silicone rubber **RTV 689** mold material over the original and clay and fill to the top of the box. Cure 24 hours.

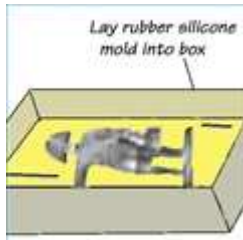
6. Step 6



Do not separate the original from the rubber mold yet.

Remove the rubber mold and the original from the box without breaking the seal between them. Carefully remove the clay from the box and clean the box.

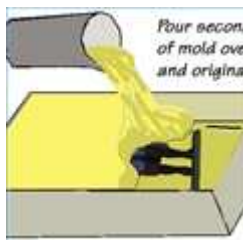
7. Step 7



Replace the clay in the box with the rubber mold and original.

Coat the rubber mold fully with a thick coat of mold release so the second silicone **RTV 689** mold will not adhere to the first. Don't coat the original with mold release. Place the original mold in the box with the original up.

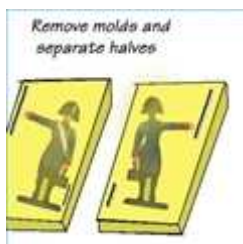
8. Step 8



Pour the second half of the silicone mold.

Mix and pour silicone rubber mold material over the first mold and original. Fill the box and allow to cure for 24 hours.

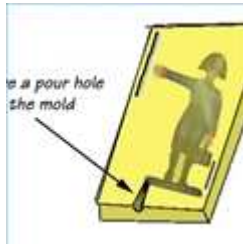
9. Step 9



Clean out the mold impression.

Separate the two halves of the mold and carefully remove the original

10. Step 10

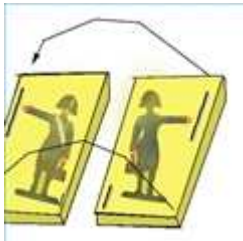


Carve a pour hole for adding melted metal to the mold.

Cut a pour hole with a sharp Exacto-style knife. Make a narrow trench cut into the rubber from the outside to the mold space in an inconspicuous location on the figure. Create very small vent holes to allow air to escape during the molding process, if the mold has problems with creating air pockets during formation.

Casting the Tin Soldier

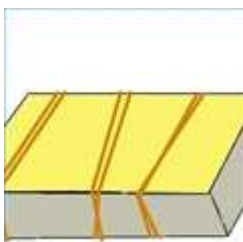
11. Step 1



Lay the molds face to face and place in mold box.

Press the two halves of the mold together, insert in the molding box and secure with rubber bands. Cut away a hole over the pour hole.

12. Step 2



Secure the molds before pouring the metal.

Place a small piece of casting metal in the casting ladle. Heat the metal as indicated. Lead melts at 500 degrees and requires a propane torch. Tin/lead/cadmium/bismuth alloy works well with rubber molds, melting at 160 degrees -- attainable with a candle flame. Tin/bismuth alloy is lead and cadmium free, but requires a small butane torch to reach melting at 280 degrees. Lead-free crown pewter is 92 percent tin and melts at 575 degrees requiring a propane torch.

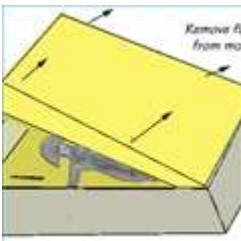
13. Step 3



Melt the metal and pour into the mold in one pour.

Pour the melted metal into the pour hole till it reaches the fill opening. Pour slowly to prevent the formation of air bubbles inside the mold.

14. Step 4



Allow time for the figure to cure before separating the molds.

Remove the mold from the box and separate the mold halves once the metal has cooled. Gently remove the figure.

15. Step 5



Paint the figure to finish.

Trim any flashing or bits of metal from the pour holes and smooth the cuts with sandpaper. To complete them paint the figures with an oil-based paint.