

Overview of Forming Canopies and Cowls

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Items you'll need:

- Soda bottle (one or two liter size – smooth wall preferred)
- Balsa block (for mold)
- 1/16" ply
- Filler block (pine, etc.)
- Heat gun
- Permanent marker (fine tip)
- Scissors

First thing you'll need to do is decide what you want to create. Make up a three-angle view of the item. In the case of a canopy, decide on the side, front, and top views. Cut out the three view drawings and paste them to your large balsa block. The drawings are then used as guide to cut out and shape the block to the final shape. Use a coping saw to rough-cut the shape and finish with a carving blade and sanding blocks.

In order to get good shrinkage of the plastic bottle around the form, the extra space within the bottle is filled with a spacer block. In order to keep the spacer block from crushing the balsa form, glue a piece of 1/16" plywood to the bottom of the form. Trim the plywood to match the bottom shape of the balsa form.

Forming Time!

Thoroughly clean the bottle you're using. If there's soda left in the inside the new part will stick to the form.

Cut off the bottom of the bottle and insert the form. Find a wood block that takes the excess slack out of the bottle. Make it fairly tight.

Fire up the heat gun. Slowly apply heat to the bottle. Start around the bottom of the form and work around the form. You want to shrink the plastic so that it tucks around and under the form.

Take the permanent marker and carefully mark the outline of the canopy. You'll use this line as your marker for cutting. Cut open the bottle beneath the spacer block and remove the form and spacer. Now carefully cut out the canopy along the line you marked. There you go – a finished canopy! You can color the canopy if you like using Lexan car body paint. Apply the paint to the inside of the canopy.

Since this is such an inexpensive technique I suggest practicing this on several bottles to get a feel of how much heat is required, etc. It took me three bottles to get a final product, but it's worth it!