Custom Ice Pops

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TOOLS:

- Utility knife (1)

PARTS:

- Cup (1)
  Paper or plastic cup or food container or cardboard to construct a box.

- Silicone (1)
  Food-safe liquid silicone and catalyst. I use Silpak R-2237-SL liquid silicone, but there are many other options available online.

- Found object (1)
  or object sculpted from clay, wood, or wax.

- Container (1)
  for mixing silicone.

- Rubber bands (1)

- Hot glue gun (1)

- Rice (1)

- Tape (1)
  Gaffer's tape or duct tape.
SUMMARY

In the height of summer, there’s nothing like an ice pop to cut through the heat. Though store-bought ones do the job, pops made by hand — both the molds and the juicy refreshers — will taste that much better.

Ice pops can be cast in any shape you envision. You can make simple pop molds from everyday household items or from food packaging. If you want to get really crafty, you can experiment with liquid silicone and make your own mold.

You’ll find these instructions and recipes, as well as many more, in Pops! Icy Treats for Everyone (Quirk Books).
Step 1 — Choose a pattern object.

- You can make incredibly imaginative pop molds with food-safe silicone rubber. Silicone picks up detail as faint as a fingerprint and is very flexible.

- The process of making a silicone mold is easy. The liquid silicone is poured into a cup around an object, and then it hardens into a flexible mold. When the object is taken out of the mold, the negative space that it occupied makes a cavity for the pop mixture.

- A silicone mold can be used over and over to create hundreds of ice pops. Molds can be made with multiple cavities, and several objects can be cast in the same mold, as long as there is a 2” space between them.

- The original object shape that will be made into pops is called the master pattern. This pattern can be any shape, such as a small toy or other found object. Plastic or wood works best; glass and ceramic objects will stick to the silicone and are not practical for this purpose. You can also sculpt characters or shapes out of clay, wax, or wood to use as patterns. I use clay, which hardens so that I can easily pull it out of the silicone and use it again.

- Most manufactured hard plastic ice pop molds are shaped with draft, which means they’re angled slightly so you can pull the pops out easily. Consider draft when choosing your master pattern. The flexibility of silicone can accommodate small undercuts (grooves in the object), but master pattern objects that exhibit at least some draft are easiest to mold. The simplest objects to mold have a flat side, so they’ll require only a 1-part mold. If there are holes or negative spaces in the pattern, fill them with clay so the liquid silicone won’t seep in.
Step 2 — Find or make a mold container, then make your mold.

- You’ll need a paper or plastic cup, or a yogurt or other food container 1/4" to 3/8" larger than your master pattern on all sides. More than 2" of space around the object will only waste material and make the mold less flexible. If you can’t find an existing container that’s slightly bigger than your object, construct a box out of cardboard, sealing all seams with a hot glue gun so the container doesn’t leak.

- Glue the flat side of the master pattern to the bottom of the container to keep the object from floating when you pour in the silicone. Draw a line on the container to indicate where the back of the object is positioned, because once the silicone is poured in, you won’t be able to tell back from front. Later you may need to cut the mold in order to remove the object, and a cut will be less noticeable at the back.

- To pre-measure the silicone, pour some uncooked rice into the container until there’s a 3/8" layer of rice on top of the object. Pour the rice out into a measuring cup: this is the amount of silicone you’ll need.

- When you purchase the silicone, the package will have 2 bottles: the silicone and the catalyst. Thoroughly mix the silicone and catalyst together to make the amount you need; immediately they become activated and the slow hardening process begins.
Step 3

- Pour the mixed liquid silicone around the object until it covers it by 3/8". Tap the mold gently on a work surface to remove the air bubbles. (Alternatively, you can remove the bubbles by placing the mold on top of a running clothes dryer loaded with a few tennis balls for 30 minutes, or you can put it on top of a stereo speaker with the bass cranked up for 30 minutes and dance until the bubbles are gone.) Then let the silicone cure for 12–24 hours, or as directed on the package.

- Mark a line on the hardened silicone that aligns with the line you drew on the container to indicate the back side of the object. Rip or cut the container away from the mold. Remove the master pattern; it might pop right out of the mold, but if you have trouble removing it, use a utility knife to cut a small slit in the backside of the mold to create an opening. Wash the mold with soap and water.
Step 4 — Cast the ice pops.

- Close the slit (if you made one) with rubber bands or duct tape.
- Pour the pop mixture into the mold.
- Freeze for 20–30 minutes. When the mixture is partially frozen, insert the stick so it stands upright.
- It helps to surround the popsicle stick with other sticks perpendicularly to keep it in place.
- Freeze for 8 hours. Remove the rubber bands or tape, and remove the pop from the mold. Fabulous!

Step 5 — Cool drafts.

- A. Good Draft: The pop will come out easily.
- B. No Draft: The pop will come out if it’s allowed to melt slightly first.
- C. Bad Draft: You will never get the pop out.
- D. Small Undercuts: The pop will come out with a little wiggling if the mold is made of flexible silicone.
- E. Large Undercuts: The pop will be very difficult to remove.

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