



\$3.00

HOW TO: MAKE MOLDS & CASTINGS

And Live To Tell About It!



Making a flexible mold of an original model will let you make one or many reproductions of that original in a very short time. However, some have described making flexible molds as a tedious and frustrating process that is better left to the pros.



Smooth-On is here to take the guesswork out of making flexible molds and reproductions (castings) by offering this informative overview that will introduce the reader to basic techniques as well as materials available to make flexible molds and rigid castings.

Smooth-On also offers mold making and casting seminars on a regular basis at its facility in Easton, PA. Our website is packed with even more tips on a wide range of molding & casting techniques. Questions about these materials, the mold making process or your specific project can be directed to a Smooth-On distributor or directly to Smooth-On.



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Industry uses molds to produce the shoes you wear, the dashboard in the car you drive, tires on your car, cups you drink from, your porcelain bathroom sink (sanitaryware), the telephone you use, decorative moldings that adorn homes, religious and office buildings, and concrete panels used to construct buildings, etc. Get the idea?

You Can Make A Mold Of Almost Anything - Really!

Whether you are interested in reproducing a sculpted figure, an antique picture frame, an industrial pattern, an architectural molding, a fossil, animal skin (taxidermy), the texture of a piece of fabric, or a toy, you start by making a rubber mold.

Whether you want to make one or one thousand reproductions of an original, you can do it using a mold. Whether your original model is made from clay, wax, plaster, sand, concrete, stone, metal, bone or almost any material, making a rubber mold makes it possible to reproduce that model – exactly.

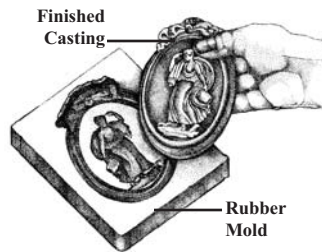


Our goal in presenting this overview is to get you to try making your own molds by showing you how easy it is.

Mold Making Materials

What Is A Mold, Anyway?

Simply put, a mold is a negative impression taken from a positive model (similar to the negative of a photograph). **Your objective** in making a mold is to reproduce an original model **as true to the original as possible**. The mold rubber should capture every last bit of detail, texture, dimension, etc. of the original. And human nature being what it is, we'll assume that your objective is also to make a mold **(a)** in the least amount of time possible, **(b)** with a minimum of difficulty and **(c)** with as little expense as possible.



MOLDMAKING, B.C. - People have been making molds for thousands of years, dating back to ancient Egypt and China. Through the years, a variety of materials have been used to make molds including sand, wax, glue, animal fat, gypsum, alginate, metal, plastic, re-usable vinyl, gelatin and others.



What Are Molds Used For?

Whether or not you are aware of it, molds touch every facet of our daily life and are used for an endless variety of applications. Molds are used to create food / dessert designs (jello mold), for reproducing original sculpture or ancient carvings. Fossil hunters and museums and taxidermists make molds of dinosaur fossils, alligators, fish, etc. to make their reproductions for display. Candle makers use molds to make an infinite variety of wax candles. Special effects creators use molds to make models and figures that make movies spectacular.



MOLDMAKERS TODAY still use a variety of materials, but a majority uses one of four different flexible rubber products for the following reasons: **1)** these rubbers **reproduce exact detail**, **2)** flexibility allows for **easy removal (demold)** from the original model and the cast piece, **3)** they generally give long life, allowing for **multiple reproductions** and **4)** because they generally yield many reproductions, which also makes them **cost effective**.

These rubber products are **latex, polysulfides, polyurethanes, and silicones**. The next few paragraphs review these common mold rubbers along with advantages/disadvantages of each.