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PYROS TECH NOTE #3

Making One-part Flexible Molds with Flexible Polymer Clay

Flexible polymer clay can be used to produce molds of small objects very quickly. This material preserves good detail but only very limited undercuts.

About Flexible Polymer Clay

Recently, the manufacturers of polymer clay (e.g. Sculpey, Fimo) have introduced a softer form of clay that remains flexible after it is baked. Like other polymer clays, flexible clay cures in the oven at a temperature of 285 degrees F. It is extremely soft at room temperature, so the hardest part of working with it is getting it to hold its shape long enough to bake it. You can improve its consistency by chilling it in the freezer for 15 minutes before working with it.

Making a flexible mold with Flexible Polymer Clay

You will need:

- A model
- Flexible Polymer Clay
- Talcum powder or cornstarch
- A pyrex baking pan
- Refrigerator
- Oven

Safety first!

Flexible mold clay is non-toxic and non-irritating to most individuals. Please use caution when baking the clay and handling hot pans.

1. Prepare your model

Your model can be made of modeling clay, wax or any non-porous material. Porous surfaces such as wood, shells, etc. should be sealed with a coat of spray acrylic laquer.

2. Chill the polymer clay

Knead the clay well. Form it into a slab wide enough to cover your model, and less than 1/4" thick. Put the slab in the freezer for about 15 minutes to firm it up.

3. Mold your object.

Dust your model lightly with talcum powder or cornstarch. This keeps the clay from sticking to your model. Now take your slab of clay from the refrigerator, and working from one end, press the slab down over your model, pushing the clay gently into undercuts. Work quickly so that the clay does not warm

up. This takes a bit of practice, so if you don't like how your mold is coming out, you can always peel it off, knead it into a ball and start over. No harm done!

Now peel the clay off the model and your mold is ready to bake.

4. Bake the mold

Place your mold face up on a glass baking pan. If the mold tends to sag, use some vermiculite or sand to prop it up while it bakes.

Bake at 285 degrees F, allowing 20 minutes for each 1/4" of thickness. This means that most molds will be done in less than 15 minutes. Do not overbake! Let the mold cool and it will be ready to use.