

Cold Casting . . .

How to create the look

And feel of foundry castings



Metal casting, especially bronze castings are the most desirable high end statuary finishes in today's art world. They are truly gallery art. However, the costs and time associated with such castings are often prohibitive to an artist on a limited budget.

Cold casting was developed to provide a low cost option to the traditional hot foundry casting method. Cold casting uses the same metals (bronze, copper, brass, aluminum and others) but in a different form.

The metals are ground into a fine powder and mixed with a casting medium and poured or painted into a mold. The result is a surface that almost duplicates the look of an expensive foundry casting. It can be polished to a high sheen. It can be patinaed using cold acids, just as if it was solid metal. That is because the surface is of metal bonded together with the casting medium.



ArtMolds has created an all-in-one ColdKast kit using Forton MG as the suspending and back up medium. Forton is water soluble so clean up is a snap and by adding an accelerator a complete casting can be done in under an hour or so. Better yet, there is absolutely no odor.

We are going to demonstrate how easy it is to use. To begin with we need a mold. The ColdKast Kit works well with both alginate and silicone molds.

We have created a mold from a casting using the Face Casting Kit with MoldRite25 silicone. ◇

Step 1

We begin with a mold we have created from a master cast. The mold can be of alginate, resin or silicone. In this example we are using a MoldRite 25 silicone mold because it requires no release agents which may mar the surface of the casting we are about to make.

Step 2

Open the ArtMolds' ColdKast Kit and assemble the components from the kit. The kit consists of a mixing container, container of bronze powder dry mix and a liquid resin component, the back up dry mix and additional backup liquid resin, a mixer, a dust mask and a packet of chopped fiber, and a 2 or 3-inch chip brush. We will not use the chopped fiber.



Though you don't need it we will use an accelerator to speed the setting of our casting material. The accelerator consists of a 10:1 mixture of water to aluminum sulfate. You can get the aluminum sulfate from a garden store as it is a fertilizer. You will also need '000' grade steel wool, paste wax, a can of spay polyurethane, picture wire, latex gloves 2 mixing containers



Step 3
Pour in your liquid VF-812 into the mixing container.



Step 4
Then pour in the powder on top of the liquid.



Step 5
Mix your ingredients until you see no white streaks.



Step 6
After mixing, separate your mix into two equal portions.



Step 7
Add about 4-table spoons of accelerator to one portion.



Step 8
You will notice the face mix begins to thicken when you mix in the accelerator.



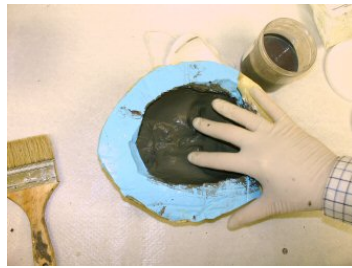
Step 9
Begin painting in the face mix using your brush.



Step 10
Make certain you completely cover the surface.



Step 11
Wash your brush and dry thoroughly.



Step 12
Let the surface begin to set. Test lightly for firmness with your finger.



Step 13
Repeat steps 7-12 to apply a second coat



Step 14
After you second coat, put aside to dry thoroughly



Step 15
Begin mixing the backup mix by pouring the backup VF-812 into a clean mixing container.



Step 16
Add the backup dry powder mix from the kit.



Step 17
Mix thoroughly until you see no more streaks of the white liquid.

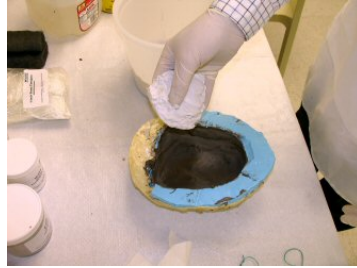


Step 18
Add about 6 tablespoon of accelerator. But be careful not to add too much or your backup mix will set before you have a chance to apply it.



Step 19

Continue mixing to incorporate the accelerator. Your mix should begin to thicken up.



Step 20

When the mixture is about the consistency of peanut butter you can apply it on top of the face coats.



Step 21

Cover the surface to a depth of about 1/4-inch or so. Be careful that you have adequate thickness on the sides of you mold as gravity tends to pull the backup mix to the lowest points.



Step 22

Take your picture wire and loop the ends as shown in the photo.



Step 23

Place the loops on either side of the mold on top of the back up mix. Make certain you have enough wire showing that it can be hung on a wall hook after the backup mixture sets.



Step 24

Now place a glob of backup mix over each loop to bury them into the mold. Cover the wire well.



Step 25

Continue to add the balance of your back up mix evenly through out the mold.



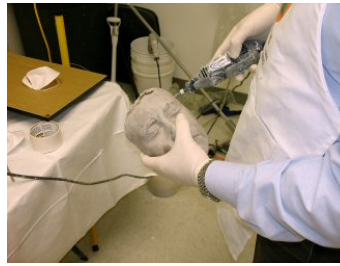
Step 26

Then set you mold aside to dry. With the use of the accelerator you mold should be set in 30-45-minutes.



Step 27

When the casting material is set you can demold. Carefully remove the mold from the casting. The casting will have a haze across its surface. This is normal.



Step 28

There are several operations to clean up your cast. Use a Dremmel tool to remove any ragged edges.



Step 29

An inexpensive wood or plaster rasp tool is used to smooth all edges. Once the edges are smoothed you can begin polishing the surface to bring out the bronze.



Step 30

Use the '000' grade steel wool and 'elbow grease' You must work at this until you see the shine of the metal. Seal with a polyurethane matte finish. Then wax and buff to bring out the luster.