

More Uses for Cheesecloth in Life Casting

by David E. Parvin, A.L.I.



Photo 1. Spreading alginate over a piece of cheese cloth prior to covering one of the alginate `pancakes. "

In the March 2004 issue of *Sculpture Journal*, I explained that cheese cloth along with fast setting plaster have definite advantages over the more common plaster bandages for making mother molds in life casting. The only time that I would recommend plaster bandages is if someone is interested in doing just one casting. The easiest way to achieve this is to purchase a kit which will have everything needed and will almost certainly provide plaster bandages for the mother mold since they are easy both to supply and explain how to use. However, if one wants to become a serious life caster, using cheese cloth and fast setting plaster will save time and money and consistently result in more perfect castings. Last month, August 2005, I described how cheese cloth can be used to bond the alginate layer to the mother mold instead of using rolled medical cotton. While cotton usually will do the job nicely, I rely on cheese cloth for difficult and or complex castings. In this article, I will explain how to use cheese cloth to strengthen alginate itself. In fact, the alginate can be so tear resistant that one can do some castings that one might have thought could have only been achieved with fast setting platinum-cured skin safe silicone rubber but without the rubber's disadvantages such as high cost and the tendency to pull out hairs.

To determine for yourself just how tear resistant alginate can be, mix up a small batch of say one pound of water and five ounces of alginate. Take about a third of your batch and spread it out on a flat surface as if it were a pancake. Besides, it makes another pancake. Cut a piece of

cheese cloth just large enough to cover one of the pancakes. Spread about half of the remaining alginate over the cheese cloth. Turn it over and repeat with the other side. (See photo # 1) Lift up the alginate covered cheese cloth and cover one of the pancakes being careful to work out any air bubbles between the layers. Allow the alginate to set up. Pick up the plain alginate and see how easily you can tear it. (Photo #2) Next try the alginate with the cheese cloth. You may be able to tear it but only with considerable effort. (Photo #3)

A few hints before I describe some applications. The tear resistance of plain alginate depends upon the formulation. The strongest that I have come across is FiberGel by ArtMolds which has fibers blended into it allowing it to be very soft and flexible yet extremely strong. (See "Testing a New Alginate...", *Sculpture Journal*, May 2002, by yours truly.) While any good quality alginate may work for most applications, none have the tear strength you can get by adding cheese cloth.

Remember, one alginate has setup, new or still wet alginate will not bond to it unless it is treated. If possible, the cheese cloth covered layer should be spread over the first layer before the first layer has set up. But if one is running out of time (I always set a timer and keep an eye on it so I know just how much time I have), one can mist the surface of the first layer with Algislo, also by ArtMolds. This will keep the surface ungelled for a few more minutes giving more time to apply the second layer. And even if the first layer has set up, misting it with Algislo will soften the surface enough so that the second layer will bond.



Photo 2. Able bodied assistant, Audra, tearing the plain alginate `pancake. "



Photo 3. Audra trying without success to tear the alginate covered cheese cloth reinforced `pancake. "

Remember, once alginate has set up, new or still wet alginate will not bond to it unless it is treated.

Okay, so you can make very strong alginate, so what? Upon discovering that lightning is electricity, Ben Franklin asked himself how knowing this could be of any use to man kind. He then invented the lightning rod saving countless lives and property. Tear resistant alginate probably isn't going to be quite as beneficial to mankind, but it can be useful. I'll give several examples.

The easiest life casting to do is a hand. All one has to do is select a container somewhat larger than the hand, pour in some alginate, stick in a hand until the alginate sets up, pull out the hand, pour in whatever you want the hand to be made of, let it harden, and remove the alginate. Myself and nineteen assistants recently cast 651 hands in less than six hours just this way. Now supposing one wanted to cast more than just the hand up to the wrist. Sounds simple enough, just get a taller container. The problem is that there is a limit to how high up the arm you can cast before something unexpected happens. The cast fingers become flattened out and look like duck beaks. The first time this happened to me, I was baffled. I finally figured out that if the column of alginate is tall enough, its own weight compresses the alginate at the bottom causing the fingers to be squashed. The obvious solution is to make a thin, lightweight mold.

If you have used fast setting platinum cured skin safe silicone rubber, FSPCSSR, you know that an arm can be covered up to at least the elbow and the FSPCSSR removed as if it were a glove, i.e., without cutting a seam. The FSPCSSR mold may even be rigid enough to hold its shape without a mother mold. Filling the mold with plaster, Forton MG, etc. will give you a seamless casting of the hand and arm. The disadvantages are the expense of the FSPCSSR and its tendency to pull out hairs. In my experience, using enough releasing agent to eliminate the "waxing" effect results in an unacceptable loss of detail. The same kind of mold can be made with alginate and cheese cloth. Just coat the arm and hand with alginate and then apply a second layer made of alginate covered cheesecloth. Using a piece that is

long enough, start at the elbow and either wrap it down around the arm and hand or apply it straight down the arm, around the hand and back up the other side. You may have to try this several times to get the knack of it. This mold will come off the model in one piece without tearing with a little gentle pulling. Unless the model is extremely hairy, there should be no discomfort.

The easiest way to support the mold for filling is to suspend it from the open end. Someone can simply hold it while another person pours in the casting material. But this requires that the mold be held until the material sets up. What I have done is cut three pieces of string about eight feet long. To each end, six in all, I have tied large fish hooks. I drape the strings at their midpoints over a ceiling hook so that the fish hooks hang about four feet above the floor. I attach the hooks around the open end of the mold and suspend it at a convenient height indefinitely. It is a good idea to crimp down the barbs on the fish hooks for easy removal from the mold. (Or, for that matter, for easy removal from yourself if you get careless!) This method should allow for distortion free and seamless castings. (Photo #5)

If you think that it's necessary, you can build a mother mold in plaster around the suspended alginate and cheesecloth. Just paint several layers of fast setting plaster over the alginate. You may even gently, so as not to distort it, wrap the alginate with a layer of cheesecloth and paint very wet plaster into it.

In the Feb. and Mar., 2005 issues of Sculpture Journal, I write two articles on casting a head in the round. While the process as described generally works just fine, I have since started applying a piece of alginate covered cheesecloth from the temple on each side of the head rearward to just short of the center of the back of the head. Do not overlap the pieces in the back or it will make cutting the seam more difficult. The rest of the process is the same as in the articles. The result is that spreading apart the mold in the back to get



Photo 5. Applying a piece of alginate covered cheese cloth to the temple when casting a head in the round.

the model's head out is far less likely to tear the alginate and assures that- the mold will close back up precisely aligned.

A third use is to help alginate to stay in place. For example, if you were casting arms crossed in front of a person's chest, you may find that the alginate tends to drip or run off the bottom sides (undercut areas) of the arms. (Properly mixed alginate, i.e., not too runny is essential here.) Applying alginate covered cheesecloth over and under the arms can be very helpful.

While cotton usually will do the job nicely, I rely on cheese cloth for difficult and or complex castings.

By the way, you may be thinking as I did, why not just eliminate the first layer of alginate and just apply the alginate covered cheesecloth directly to the skin much as some life casters use plaster bandages instead of alginate. But just as plaster bandages are terrible for capturing detail, the alginate covered cheesecloth applied directly to the model results in too many surface bubbles.

Using alginate covered cheesecloth is a technique which I have found to be very useful. I am certain that I will find additional applications in the future. Remember, one of the differences between a good life caster and a great one is that the great one knows more tricks. Good luck!



Photo 4. A seamless and distortion free plaster hand and arm.



Dave Parvin face-to-face with his recent commissioned bronze sculpture in downtown Denver, Colorado

David Parvin is a sculpture living in Denver CO. He has years of experience in life casting and holds workshops throughout the year. He may be reached at 303-321-1074

Sculpture Journal October 2005