



Topic A113-  
The Best Ways to Mix Alginate

There are a lot of ways to mix alginate. Some are better than others.

For a face or head cast where you are mixing less than one pound, mixing with a sturdy metal **kitchen whisk** is quick, efficient and effective. You can mix up 3/4 of a pound in an oversized plastic bowl in less than one minute.

For larger amounts, the whisk isn't going to be strong enough to mix efficiently. There are three main techniques and we will discuss them here:

1. **Mixing by Hand** (literally)- Some people like to put the alginate and water into a bucket and mix it with their hand. This is the least efficient and messiest technique and generally results in the lumpiest mix. If you are very quick and strong you can mix 1-2 pounds of alginate this way in a little over a minute. You must keep mixing until the alginate smooths out. Some lumps are inevitable, but these generally will not affect the final casting.

2. **Mixing in a Bag**- This is the technique we use in our Hand Casting Kits. We use a heavy duty 3-mil bag to keep it from breaking during mixing.

With this technique measure out your alginate into a sturdy plastic bag, pour the water directly into the bag and mix in the bag by rubbing the bag against a table or counter top. This works better for thinnish mixes as for a hand cast. It is pretty efficient and very neat, but there are a couple of things you **MUST** do to make this technique work:

First, you must have a flat table available. The actual mixing in this method consists of kneading, mashing, smashing and generally vigorous rubbing of the alginate mix **THROUGH** the bag. A flat tabletop really helps.

Second, after the water goes into the bag, you've got to get most of the air out of the bag before you start mixing. This means that you've got to push down on the bag, pinch the bag closed right at the top of the alginate/water mix, then grip the bag right at the top. Grip it really tight then start the general Mashing, Smashing and Rubbing. You need to be able to flatten the bag out on your table without too much extra air in the bag so you can work out the dry lumps in the alginate as efficiently as possible.

Again, don't worry about a few lumps in the mix. They very rarely affect the quality of the casting.

3. **Power Mixing**- The very best way to mix larger quantities (over about 1 1/2 pounds) of alginate is to use a power drill with a paint mixing attachment on it. They are available at any paint, home improvement or hardware store. **DO NOT** get the one that looks like a black hamster wheel. It is **WAY** too difficult to clean up afterward. The best one looks like an airplane propeller at the end of a metal shaft. It has a ring around the outside and two spiral blades attached to the ring. This one mixes very well and is fairly easy to clean.

Put the alginate and water into your bucket and put the paint mixer in. Mix slowly until the water is completely mixed into the powder. Then increase the mixing speed. To avoid mixing a lot of air into the alginate, make sure that air is not being sucked down the shaft of the paint mixer attachment. If it is, reverse the direction of the drill so that alginate is coming **UP** the shaft and down the sides of the bucket. Very large quantities of alginate, up to about 5 pounds, can be mixed very quickly with this technique. More than about 5 pounds and you should get two drills and two buckets.