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Mixing Guidelines
for LifeCasting Arts Alginates

Alginate (AL-gin-it) molding material is a powder that forms a thick liquid when mixed with water ranging from pancake batter thickness to that of cream cheese depending on how much water you mix with it. Different jobs require different consistencies and, while we offer some suggestions, that decision is largely up to you. The chart on the back of this sheet will help you mix the correct consistency for your job.

Different alginate formulas "set" (turn from a thick liquid to a rubbery solid) in different amounts of time. LifeCasting Arts offers alginate materials with a range of setting times as follows.

HandGEL*	3 min. w/80°F water	Cooler water will slow the setting of alginate materials while warmer water will speed it up. The setting times shown are determined in a 70°F room. Room temperature will also affect setting time although less than water temperature. (warmer-faster, cooler-slower) **IMPORTANT NOTE:** Alginate is ***NOT*** dimensionally stable over time. Pour your casting as soon as you possibly can for best results. Keep your mold wet by covering it with wet paper towels until pouring.
MagicGEL	5 min. w/70°F water	
FaceGEL	5 min. w/90°F water	
BodyGEL	8 min. w/80°F water	

For hand casting jobs, wait at least 40 seconds after the alginate is no longer sticky on the surface before beginning to remove your hands from the mold. Do not rush the hand removal as you could ruin the mold.
*When using HandGEL for baby hand casting, we recommend the use of 92°F water. This is the same as the baby's skin temperature. It will also speed up the setting time of the alginate to approximately 2:15 so work quickly.

MIXING

Technique #1- Power Mixing (Over 1 pound)

At the hardware store get a paint mixer attachment, but.... **DO NOT** GET THIS KIND>
Place alginate powder in mixing bucket.
Pour water onto alginate.
Lower the jiffy mixer into the bucket**.**
Mix Slowly at first until all the powder and water are mixed, then increase speed.
If air is being sucked down the shaft of the mixer, reverse the drill so alginate is coming UP the shaft. This will minimize air bubbles in the mix.

Technique #2- Using a Kitchen Whisk (Up to about a pound)

Get a good sized metal whisk.
Put alginate and water into a large bowl. (Slanted sides are best. Plastic is better than metal or ceramic.)
Stir the alginate/water mix to incorporate the powder into the water.
Whisk the mixture vigorously like you were beating eggs.

Technique #3- Mixing in a Plastic Bag (Up to about 2 pounds)

Measure out your alginate into a sturdy plastic bag (3 mil or so). The bag should be at least 5 times larger than the alginate you're using. ZipLok type bags don't work very well.
Pour in the water. Push out most of the extra air and tightly hold the bag closed at the top of the bag.
Mash, squish, roll and knead the bag on a flat surface until the alginate is well mixed (1-2 minutes).
Turn the bag upside down with the open end inside your molding bucket.
Squeeze the mixed alginate into the mold or into a bowl for face casting.
Throw the bag away when done. Cleanup with this technique is a snap.

Notes:
DUST- Use a NIOSH approved class N95 "Nuisance Dust Mask" and Safety Glasses when mixing alginate.

CLEANUP- Alginate will not stick to non-porous surfaces but ***will stick to cloth or carpet***. Remove alginate from buckets and mixing tools quickly to keep the alginate on them from drying and sticking.

How to use the handy **"How Much Alginate Do I Need"** Chart

We recommend a Medium Mix for all applications. You may find you need a thicker or thinner mix for your application, but in general, a Medium Mix works very well for all applications.
A thinner mix will take a little longer to set and will also shrink faster than a thicker mix.

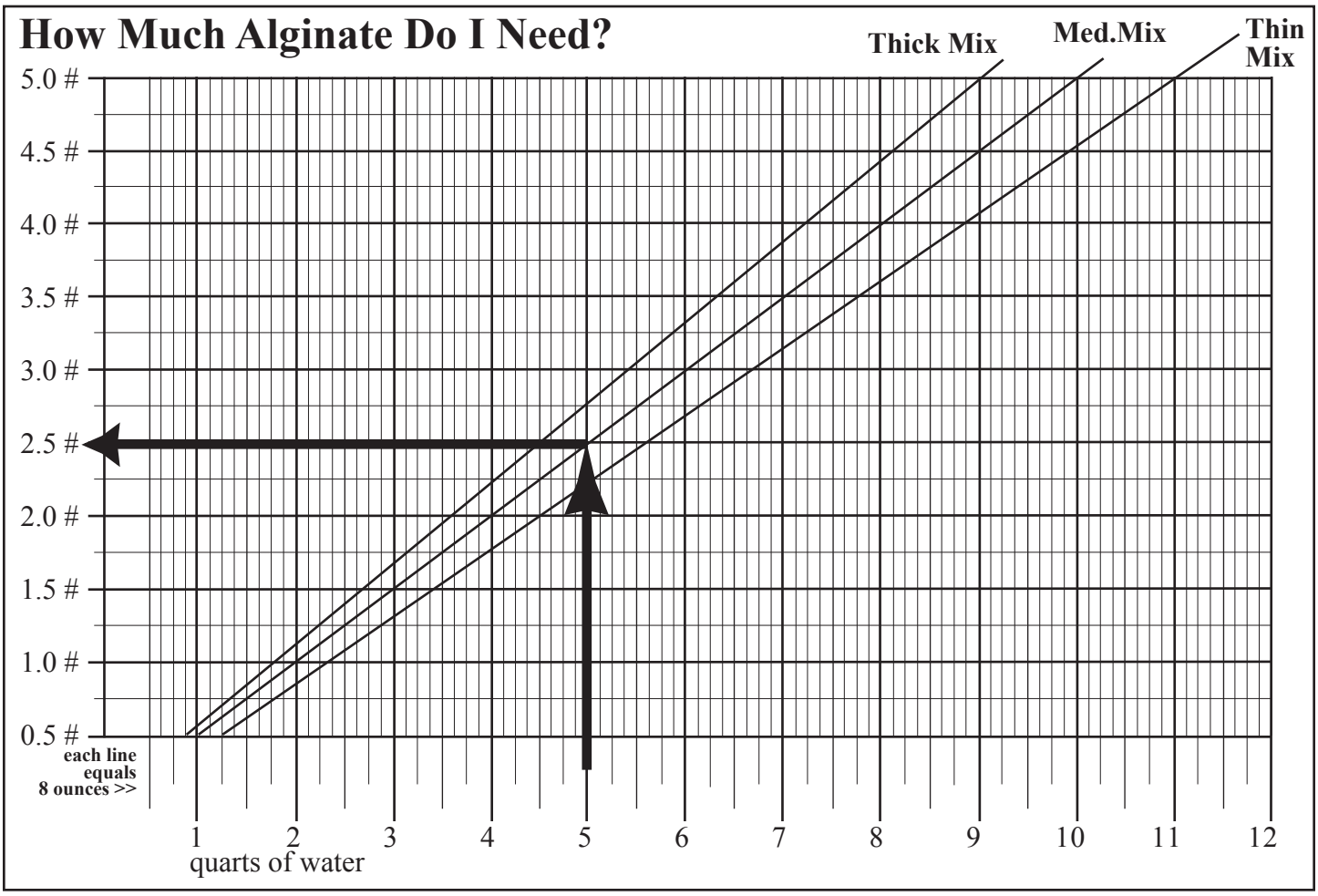
For a Hand Cast in a Bucket:

1) Choose a container that you will be taking the hand cast in. A bucket or a large Tupperware-type container work great (*try to make the container **JUST** big enough*). Fill the container with water to the top. Put your hand(s) into the bucket and let the water overflow. That's how much water you'll be using.

2) If your base container is not a Tupperware-type container with measurements printed on it, pour your water into one that **is** graduated in cups and/or quarts. (Remember to use the correct water temperature for the alginate.)

3) Based on how much water you will be using, use the "How Much Alginate Do I Need" Chart to determine your alginate requirements.

(Example: If the bucket required 5 quarts of water to fill to the correct level, find 5 on the bottom scale of the chart. Follow the line straight up until it crosses the slanted line labeled MED.MIX. Follow the horizontal line to the left until you reach the scale that indicates how many pounds of alginate you will need. In this case, it is approximately 2.5 pounds.)



Other Types of Jobs:

Of course, if you want to mix a certain number of pounds of alginate, you can use this chart in reverse to determine how many quarts of water you'll need. A typical face cast requires about 1/4 pound (mix with 1 pint water), an entire head about 1 1/4 pounds, and up to 2 pounds for a front or rear torso. If you're using FaceGEL or BodyGEL, we recommend a MED.MIX. (More hints and tips at www.LifeCastingArts.com)