



Mixing Guidelines for Accu-Cast Alginates

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www.accu-cast.us

Alginate (AL-gin-it) impression 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. Accu-Cast offers materials with a range of setting times as follows.

190-XS	1 min. w/32°C water	Cooler water will slow the setting of alginate materials while warmer water will speed up the setting. The setting times above 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 <u>NOT</u> 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.
270-D	2 min. w/21°C water	
370-SD	3 min. w/21°C water	
380-CC	3 min. w/27°C water	
390-S2	3 min. w/32°C water	
570-PGV	5 min. w/21°C water	
580-CC	5 min. w/27°C water	
590-IBG	5 min. w/32°C water	
880	8 min. w/27°C water	

MIXING

Technique #1- Power Mixing (Over 500 grams)

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 500 grams)

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 1 kilogram)

Measure out your alginate into a sturdy plastic bag (3 mil or so). ZipLok type bags don't work very well.

Pour in the water. Push out most of the extra air and tightly twist the bag closed.

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 most 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.

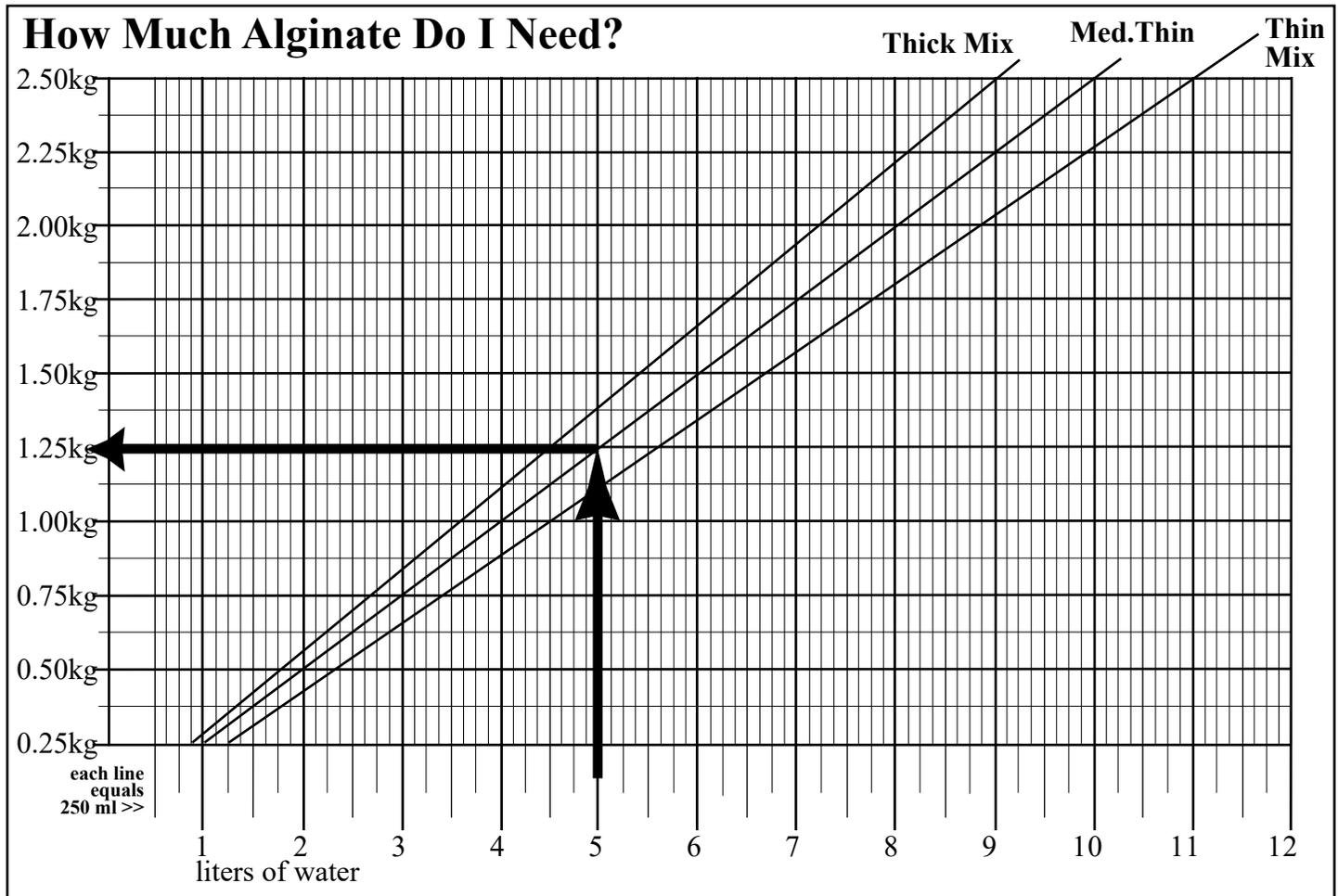
For a Hand Cast in a Bucket:

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 ml and/or liters. (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 liters 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 kilograms of alginate you will need. In this case, it is approximately 1.25 kilos.)



Other Types of Jobs:

Of course, if you want to mix a certain number of kilos of alginate, you can use this chart in reverse to determine how many liters of water you’ll need. A typical face cast requires about 100 grams (mix with 400ml water), an entire head about 500 grams, and up to 1 kilo for a front or rear torso.

If you’re using 590-IBG, 680 or 880, we recommend a “Thick Mix”. (www.accu-cast.us)