

TECHNICAL DATA FOR ALGINATES

Alginate is an impression material that forms a thick liquid when the powder is mixed with water ranging from pancake batter thickness to that of cream cheese depending on how much water you choose to use. Alginate is most commonly used in dental, prosthetics and life casting applications. Alginate is not dimensionally stable over time and will shrink and distort. Pour your casting material as soon as possible, the most common being plaster and gypsum.

Alginate	Setting Time	Water Temperature	Common Applications	You Use...	Your Result!
Cromax Dental	2 mins Chromatic indicator from Pink to Blue	26°C	Dental, Babies hands & feet, small animal paws	Cooler water	Slower set
Accucast 570 (HandGel)	5 mins	21°C / 70°F	Bucket moulds, hand casting, immersion into alginate	Warmer Water	Faster Set
Accucast IBG (Imperial Body Gel)	5 mins	32°C / 90°F	Face Moulds, Medium size lay-ups, vertical surfaces	More Water	Slower Set
Accucast 680-LS (Low Shrinkage)	6 mins	26°C / 80°F	Medium-sized projects, hands, arms, faces and larger props	Less Water	Faster Set
Accucast 880 (Body Gel)	8 mins	27°C / 80°F	Torso's, Full Heads, Larger projects	Cool Room	Slower Set
				Warm Room	Faster Set

MIXING

Technique #1 - Power Mixing (Over 500 grams) Souce a paint mixer attachment, preferably one with simple shape to reduce aeration of the alginate and minimize air pockets. Place alginate powder in mixing bucket. Pour water onto alginate. Lower the 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 (min. 3 ml thick). Zip Lock 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 moulding bucket. Squeeze the mixed alginate into the mould or into a bowl for face casting. Throw the bag away when done. Clean up with this technique is a snap.

Notes:

DUST - Use an N95 Dust Mask or half mask respirator and Safety Glasses when mixing alginate.

CLEANUP - Alginate will not stick to non-porous surfaces but will stick to clothing 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, PVC pipe 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 litres. (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 litres 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 labelled 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.)

