



**HOW TO  
MIX & POUR  
CASTING  
PLASTERS**

# CASTING PLASTERS

## INTRODUCTION

This instruction booklet is intended for those interested in plastercrafting as a hobby. It is not intended to be a comprehensive guide for those setting up a plastercrafting business. The explanations are given in a non-technical manner to assist the beginner to start pouring plaster moulds as quickly and as easily as possible.

We manufacture a wide range of rubber and plastic vacuum formed casting moulds and provide a wide range of figurines, plaques etc to start your plastercraft hobby. Visit our web site at [www.aldaxmoulds.com.au](http://www.aldaxmoulds.com.au) to see our latest moulds.

Casting with plaster can be a most satisfying hobby, whether you just use a single mould and make a few castings or go into production for profit. It is one of the oldest arts, capable of fascinating a child or presenting a challenge to the most talented person. If you are looking for a way to make some extra money with little investment, plaster casting holds a great potential.

### TYPES OF PLASTERS.

Casting Plaster is the most suitable plaster for casting figurines and plaques and gives a superior finish due to its harder surface. This minimises surface pitting that can cause surface indentations. For information on Stone Plasters and advanced techniques for professional use write, e-mail or phone Aldax.

### PROPERTIES OF PLASTERS

Plaster casting is deceiving in its apparent simplicity. It is easy to start and get results that are pleasing to the eye, it is difficult to master plaster and become a professional.

- (1) Plaster is mixed with good clean room temperature water, fit to drink.
- (2) Plaster is always added to water - never add the water to the dry plaster.
- (3) Plaster adheres to plaster. Sometimes you can't help wishing this wasn't the case. However this is great for sculpture. For all other cases where you don't want the plaster to stick, you must use a parting agent. Craftco Mould Release is a good example of a well proven mould release.
- (4) Plaster must be carefully stored in a clean dry place. Kept in a sealed container it has a shelf life of up to 12 months.
- (5) The setting time of plaster may be varied by adding either Craftco Sodate Retarder or Craftco Quick Set. These should be used as directed on the labels.

### A GENERAL GUIDE TO PLASTER MIXING.

For general use a mix of 1 Kg of water to 1.5 Kg of plaster gives good results. This is easy to calculate and provides a good firm plaster model. However the instruction we will give is for a tried-and-true method we use, where no weighing is required.

## **INSTRUCTIONS**

While the only method to guarantee the consistency of results necessary for the manufacture of many technical plaster items, such as pottery moulds, is by weighing - pouring moulds requires knowledge of the volume of liquid plaster required.

For this reason most plaster casters use the mixing method that does not require weighing. It is important that sufficient plaster mix is prepared to fill the moulds to avoid the necessity of a second mix and pour. Any plaster mix left over should be safely disposed of by pouring onto a few sheets of newspaper, leaving it to harden then wrapping it up and placing it in the garbage container. Never, never pour excess plaster down a sink, as it very quickly clogs up drainpipes.

Always use a clean container to mix your plaster. Our company generally uses plastic buckets fitted with a handle and pouring spout, available from chain stores.

As plaster is a fast setting material, you must work quickly and effectively. It is a good idea to have a few moulds that you use regularly available to fill with any excess plaster mix - rather than throw it away. Potters usually make plaster bats with any excess.

### **MIXING INSTRUCTIONS.**

- (1) After a little practice it is possible to estimate the amount of plaster mix required - but to begin we suggest you fill the mould or moulds with water - dispose of one third and pour the balance into your plastic mixing bucket or bowl.
- (2) Sift the plaster through your fingers, discarding any lumps or alternatively use a coarse sieve and lightly sprinkle plaster over the entire water surface. Continue to do this until a small island of plaster is formed above the water level.
- (3) Keep sprinkling small amounts of plaster around the island, until most of the loose water on the top is absorbed, so that just a thin film about 2 mm is left. Do not push the mounds of plaster below the surface, capillary action will soak them through.
- (4) Let the plaster mix stand still for about one to two minutes, gently tapping the sides to release any air bubbles in the mix.
- (5) After this "slaking" period begin to stir with your hand or spoon, keeping the stirring action below the surface. Stir from the bottom to the top in order to bring any air bubbles to the surface, to be skimmed off prior to pouring. Stirring for 3 minutes is usually sufficient. The longer and more rapidly you mix, the quicker the setting time of the plaster.

### **POURING INSTRUCTIONS.**

When the plaster loses its watery texture and becomes thicker and creamier, something like thin cream or yoghurt, it is ready to pour. Most professionals learn by experience when to stop stirring and to start pouring. A good test is to trail your finger over the surface and if it leaves a slight wake or trail, it is ready to pour.

Pouring Instructions. Cont.

Pour carefully in a steady continuous stream in one spot, leaving the plaster to flow up the insides of the mould, until it crests just above the lip of the mould.

Release any air bubbles by tapping the sides and gently shaking.

#### CLEANING UP

Pour the excess plaster left in the mixing container onto newspaper and let dry, or into a plastic bay or lined garbage bin. Rinse the mixing container in a water barrel set aside for that purpose. Never wash out the container under the tap in a sink.

#### HOW PLASTER "SETS UP"

Plaster when first poured appears shiny, then it begins to "set up" and becomes quite dull. As the the hardening action continues, it becomes quite hot and expands. Upon cooling the plaster shrinks slightly, but never back to its original size. This action can cause pots to break when filling them with plaster, during the manufacture of topiary trees.

It is sometimes necessary to level the base of a casting before removal from the mould. This is best achieved by waiting till the plaster reaches the "mushy" stage and then running a straightedge across the base to remove the excess plaster. Make 2 or 3 passes. Do not attempt to remove all the plaster in one pass. This is called "Screeding" Repeat screeding if necessary as the plaster expands.

#### THE FINISHED CASTING

When the plaster has cooled, the casting is ready to be removed from the mould. If using plastic moulds simply invert and gently tap to allow it to fall out.

Examine the casting and see if you need to correct your mixing technique. Holes are caused by air bubbles, The enemy of the plaster caster. They may be filled with more plaster and sanded level, but it is better to avoid them in the first place.

If the cast seems soft, add a little more plaster than you have been using, to the next mix. If the cast is too hard, leave a deeper film of water around the mounds of plaster.

If you have any queries, write, e-mail or phone us at Aldax at the address below.  
Happy plastercasting!

Distributed by

**Aldax Industries Pty Ltd**

22A Hearne Street, Mortdale NSW 2223

Phone 02/9533 9555 Fax 02/9533 9955

e-mail: [aldax@bigpond.com.au](mailto:aldax@bigpond.com.au)

web site: [www.aldax.com.au](http://www.aldax.com.au)

ABN 62 000 189 551