



Polycraft Chromatic Alginate

Polycraft Chromatic Alginate is a non-toxic non-allergenic moulding material which is safe to use on all areas of the body. Its chromatic feature ensures ease of use as it changes colour during the mixing and setting process giving you a visual indication at each stage of the process. As with all fast setting moulding materials preparation is crucial, have all quantities and materials measured and ready for use. Ensure that the model is aware before starting of how they should pose, perform a dry run to avoid material wastage, if casting hands ensure model is aware not to curl fingers as air may get trapped underneath the fingers.

If moulding hands or feet you can use polythene bags or drink bottles or a plastic container. The advantage of using plastic containers is that the container will in turn become a support jacket for the mould however you do use more material with a container than plastic bags.

If casting onto any area with long hair use a petroleum jelly such as Vaseline to act as a barrier, do not use the petroleum jelly on non-hairy areas such as breasts as the alginate will slide off.

Setting Times

The recommended water temperature for mixing is 20-23°C, colder water will slow the set time, warmer water will accelerate set time.

Mixing time is approximately 2 minutes from the moment you add the water, at this point the alginate will be bright pink and ready to go once you have mixed to a smooth consistency. At this point it's best to place your hand / foot etc. in the alginate. During the curing stage the alginate will turn pale pink. Once the alginate turns white again you can remove your hand / foot etc.

Mixing Ratios

1-part alginate powder to 3 parts water. (100g powder to 300g/ml water) for a full 450g bag of alginate you would add 1350g/ml of water. Using less water means the mix will be firmer and set faster. Using more water will make it thinner and set slightly slower. Experimentation may be needed.

Approximate Alginate Quantities

- 100g in a suitable container is enough for a baby hand or foot. (small food bag / yogurt pot etc)
- 450g of alginate would be enough for a medium size hand or breast. Unenclosed areas of the body such as the breasts will require a Modroc bandage to encase the mould to maintain the mould shape.
- A large adult male hand will require approx. 675g (1.5 bags) of alginate.
- An adult foot would require 2 x 450g bags, however this amount is dependent on the size of the foot and the container used.
- A face mould would require 450g alginate and again a Modroc bandage would be used to support the mould.
- A full neck to crotch pregnant belly would require 4 - 5 bags, if attempting this cast ensure you have successfully cast small areas as this is a very demanding cast. A large amount of Modroc bandages would be required to support this large mould.
- A bum cast from mid back to upper thighs would require approx. 4 bags of alginate and approx. 8 rolls of Modroc to support mould.
- keep in mind these quantities are approximate and may require more / less than stated.



Application

- 1: Get equipment and working space ready
- 2: Next, using a measuring jug to pour the required water into the container that you are going to place your hand/foot into.
- 3: Measure the correct weight of alginate into another container using the ratios stated
- 4: Empty the alginate powder on top of the water and start your timer. Using your mixing utensil mix in figures of 8 motion to carefully bind the powder and water together. (A hand blender or drill and small mixing paddle may be used if you are unable to break down the lumps by hand during the binding stage.
- 5: Powder starts white, after adding water it will turn bright pink. 2 minutes from adding the water and mixing the powder into the water its ready to mould. Placing the hand / foot etc. into the container that you wish to use. (It may help to wriggle fingers / hands to help air bubbles escape for a better cast)
- 6: Its best to use the alginate mould immediately after casting. If you must store the mould before casting, a moist atmosphere (a sealable plastic bag with a damp cloth / tissue etc) and use within 24hrs.
- 7: Pour casting plaster into the mould gentle agitate the mould to help disburse and release any trapped air.
- 8: After the plaster has set in the alginate mould carefully cut / break away the alginate mould to reveal your plaster cast

Casting into Alginate Mould

The most common casting material for alginate moulds is casting plaster, there are many types of casting plasters, read mixing instructions carefully before use. Mix your plaster mix thoroughly and allow to stand for a few minutes after mixing to allow air bubbles to escape. The list below gives approximations for the quantity of casting powder required:

- Baby hands and feet, 1kg of plaster is enough for 450g of alginate and will cast approx. 5 hands or feet.
- Up to 2kg of plaster is required per breast cast.
- A full-face cast requires approx. 2kg of plaster
- Approx. 3kg plaster is required for an adult foot.
- A full torso cast will need approx. 20kg of plaster, it's also worth bulking out the centre with polystyrene block.

When the plaster in the cast has set gently cut and break away the alginate, take care when removing alginate around fingers. If fingers are broken off, you can reattach with PVA glue.

While you can cast other materials in alginate moulds, due to the high levels of moisture in the mould they are generally unsuitable for most polyester, epoxy and polyurethane resins. To cast these materials generally you would cast plaster into the alginate mould and then make a latex or silicone mould from the plaster cast, the latex or silicone mould can then be used with a variety of casting materials.

Safe use

Polycraft Alginate has been re-analysed by UK and USA toxicologists in 2018 conforming to the latest EU General Product Safety Directive and the USA ASTM D-4236 for its use as a 3D hand/foot moulding material. Alginate is a powdered material and during use as it is designed for it has the potential to be inhaled and ingested. There is also a potential the powder may contact eyes so it's essential that precautions are taken when using the alginate.

- Don't use product on broken or cracked/sensitive skin. Wash skin after mixing and moulding.
- Avoid contact with eyes. If material enters eye, flush with water until clear. Seek medical advice if irritation persists.
- Do not ingest. If swallowed seek medical advice and do not induce vomiting.

- Wear a suitable dust mask, goggles and gloves for prolonged or repeated / regular use.
- Store and dispose of the material in sealed packet or container in accordance with local regulations. Do not dispose of in sinks or drains.
- Designed to be mixed and applied by adults. This is not a toy. Store/keep out of reach of children.
- Pour and mix carefully to avoid generating dust.

Technical Advice provided by MB Fibreglass - Either verbal, in writing or by way of trials - is given in good faith but without warranty, where proprietary rights of third parties are involved this applies also. This does not release you from the obligation to test the products supplied by us to ascertain their suitability for the intended processes and uses. The application, use, handling and processing of the products are outside of our control and therefore entirely your own responsibility