Easy Torso Casting
Quick and easy techniques for making a torso casting with skin safe alginate mold material and plaster for the cast.

Products used for this Project:
- Release cream – Body Double release cream (Mold-EZ)
- Moldgel - alginate mold material
- Cheesecloth – alginate reinforcement
- Plaster gauze or bandage – mother mold material
- Hydrocal – casting material

Prepare the Model & Studio
Be sure to explain the torso casting process to the model so if they have never had a body casting before they know what to expect. Be sure to tell them to hold as still as they can and not to move their head or arms if possible. This will yield a better mold and therefore a better cast.

Make sure to apply a light coat of release cream to the torso. Also cover the lower half of the body and the floor with plastic sheeting or plastic bags. Pre-cut your plaster bandage into lengths between 12” and 16” for your mother-mold. Measure out your water and your alginate into small containers.

Mix the Alginate
Mix the alginate according to the instructions of the alginate you are using with room temperature water with a wire whisk (Image #1). This should yield a mixture with a pudding-like consistency. Mix for 1-2 minutes, this will leave about 5 minutes for application. (Please note: This is a rough estimate – it all depends on the type/brand of alginate you use as well as the temperature of the water used. Keep in mind: cold water will delay the set time of the alginate and can be uncomfortable for the model. However hot water will increase the set time of the alginate and make the application harder.)

Application of Alginate
Apply the mixed alginate to the torso starting at the top and working downward. Be sure to cover the entire surface you wish to cast. Body casting alginates are designed to cure quickly therefore mixing and application times are limits. Work quickly but neatly; taking care to cover the torso evenly.

Once you have finished applying the alginate, press 1 sheet of cheese cloth onto the surface before the alginate is completely cured (Image #2) leaving the cheese cloth slightly exposed (do not press completely into the alginate). The alginate will grab onto the cheese cloth, as well the plaster bandage when applied. This will create a connection between the alginate and the plaster; preventing distortion in the cast from movement between the two.

Application of Plaster Bandage
Once the alginate has cured dip the plaster bandages in water and remove excess water by running the plaster bandage between 2 fingers (do not wring or crumple). Apply the bandages in a criss-cross pattern over the alginate. A criss-cross pattern will yield a stronger mother mold.

Be sure to evenly cover the alginate with the plaster bandage to ensure there are no weak areas in the mother mold. Smooth over the wet plaster bandages and the edges of each piece with your hands and fingers to make sure there are no gaps between the plaster and the alginate. (Image #3) This will make the mother mold stronger and also prevent distortion in the cast.
The De-Mold
Once the plaster has cured and feels rigid - hold the edges of the mold and, while pulling gently, ask the model to lean slightly forward and take a deep breath then exhale. (Image #4) The movement of the models body will help release the mold. It is recommended to cast into an alginate mold as soon as possible, because shortly after the mold has been removed from the model it will start to dehydrate causing cracking and shrinkage. (mold life is usually one day) (Image #5)
Although it is not generally recommended, you can extend the life of an alginate mold overnight by placing wet paper towels over the surface of the alginate and placing the whole mold in an airtight plastic bag.

Casting
You can easily cast into the alginate mold with plaster, or a wide variety of other water based products. Resins may be used, but are for the more experienced caster. Once you have mixed your material, apply it using a brush. Paint the plaster over the entire surface of the alginate, being careful not to go onto the plaster mother mold. (Image #6) (The casting plaster will not stick to the alginate but will stick to the plaster mother mold.) Brushing the plaster onto the surface removes the surface tension between the alginate and wet plaster which could trap bubbles on the surface. Once the mold surface is completely brushed with plaster, pour the remaining plaster into the mold and coat evenly. As the plaster begins to cure it will stiffen and hold onto the sides of the mold without sliding down.

At this point you may want to think about embedding a hanging or wire of some sort into the next layer making your body cast ready to hang on the wall. Or if you wish to mount it on a base consider embedding a mounting pin at the bottom.

Once the first coat of plaster is cured a bit you can add another coat with fibers, such as burlap of fiberglass, for reinforcement. Building up the edges of the cast will make it stronger and keeping the edges as neat as possible when casting will translate into less work once the body cast has been de-molded

Once the last plaster layer has cured you can de-mold the cast. Gently pull the mold and alginate away from the plaster. Occasionally, if you are very careful during the de-molding process, you may be able to make another casting from the alginate mold.

However in order to get multiple good body castings, make a silicone mold from the new plaster cast.

Clean Up
Remove any remaining alginate or plaster from the model and clean up with soap and water. Mixing sticks and mixing buckets can be cleaned and used again. Wait until plaster cures in buckets and then pop it out. Do not pour water that has had plaster in it in down the drain; the plaster in the water will clog your pipes! Instead wait overnight for the plaster the settle to the bottom of the bucket then pour off the water from the top and wipe out any plaster that has settled to the bottom.

Additional Notes:
● Other casting materials may be used in alginate molds provided the material is not moisture sensitive and is thick enough to be brushed into the mold, for example: AquaResin.
● Pigment can be added into the casting plaster to create a tinted casting.
● After de-molding the plaster it will feel cool to the touch. When cast plaster is dry it will no longer feel cool.
● Plaster casts can be finished with a variety of materials once they are fully dried, such as Metal Coatings, Rub-n-Buff, water-based paints or spray paints.

Caution: When plaster cures it temporarily creates heat. It is not recommended to use common casting plaster (such as pottery plaster) as a mother mold. Plain plaster can often be applied too thick as a mother mold – creating heat and model discomfort! Plaster bandages (plaster gauze) are thin and strong and will become warm to the touch when curing, but are designed not to create significant heat.

Upcoming Project sheets:
● Making a silicone mold of the plaster cast made in this article.
● Making permanent drapery for life casts.
● Finishing options for plaster life casts.

Please email us at TCS@SCULPT.com if you have suggestions for Project Sheets you would like to see or questions or comments about our Project Sheets. If you have images of artworks you have created using our Project Sheets that we could post online, please email those as well!