

The Compleat Sculptor presents...

Making a Light-weight Lay-up Casting into a Silicone Mold with AquaResin



Making a light weight casting in AquaResin, a non-toxic casting material, from a silicone mold is easy with the following techniques.

Materials Used in this Article:

- AquaResin
- Disposable Brushes
- 1.5" AquaGlass, chopped strand
- Mixing containers and gloves

Optional Materials:

- Mixol Pigments for pigmenting the AquaResin

Mold Preparation

Make sure the mold is seated in the mother mold properly and that it is clean and free of debris.

Because we are using AquaResin into a silicone mold, which has its own natural release properties, there is no need to apply a release agent to the mold. Applying a silicone release agent to silicone molds is not necessary but can prolong the life of the mold.

Brushing In

The first mix should be 1 part "L" liquid to 2 parts "S" solid by volume. A more liquid mix is preferred for capturing fine detail. For this casting we have tinted the AquaResin with Mixol pigments. Tinting the AquaResin is optional. Be sure to coat the whole surface evenly. When the first gel coat has lost its sheen and looks matt brush on another thin layer.

Reinforcement

Regardless of how many layers you apply; each layer except the first and the last should contain reinforcing fiberglass.

For this Project Sheet we have used AquaGlass chopped strand mixed with the AquaResin, then applied the mixture with a brush. Using a brush to apply this first reinforcing layer prevents "poking" holes in the gel coat. After the first reinforcing layer is cured additional layers may be added with a brush or a spatula.

Building Up

The final layers can be mixed thicker for quicker build-up and the final casting should be about ¼" – ½" thick for a life-size torso. If the cast is larger – a thicker cast may be required. The last layer should be mixed a little thicker to cover the fiberglass.



Image #1

For this Project Sheet we are using the mold made in last months Project Sheet.



Image #2

Make sure the mold is clean before casting.



Image #3

Brush in the first layer.



Image #4

Be sure to coat the whole surface evenly with each layer.



Image #5

Thicker layers can be applied with either a trowel or a brush.

Hanging Hardware

Before you apply your last build-up layers, think about embedding a hanging device for you cast. It is not necessary to embed the hangers into your thin lay-up layers. Additional AquaResin can be added to the back of your casting to anchor your hanger.

Demold

After curing overnight the cast can be demolded. Gently pull the flanges of the rubber mold and remove the cast and the rubber from the mother mold. Then gently peel the rubber mold away from the cast.

Finishing

Once the cast has been de-molded you can chase (clean-up) the edges as well as any imperfections in the mold with files, rasps and sandpaper.

This cast is not finished yet, Stay Tuned! In next months Project Sheet we will be discussing finishing options for this cast.

Tips

- Newly mixed AquaResin in the presence of curing AquaResin will be accelerated. This includes curing AquaResin in the mixing cup or on the mixing utensil as well as previous layers.
- AquaResin can be tinted with Mixol pigments or high quality powder pigments to achieve a colored cast.
- In this Project Sheet we used a mold made of tin-based silicone, which only **requires** the use of a release agent if you plan to cast silicone into it. If you are using polyurethane casting materials with a silicone mold a release agent is not necessary but will prolong the life of the mold. If you are casting expanding polyurethane foams into silicone molds you must use Mann Release 2831.
- We recommend using thick gloves if you are using fiberglass. Fiberglass is not toxic but can be very irritating to your skin.
- When sanding or rasping any materials we recommend use of a dust mask and eye protection.
- There are also several additives for AquaResin which include; THX-6, XLR-8, SEPR-8 & DX-L. Please see www.SCULPT.com for more information regarding the use of these additives.



Image #6
Embedding hanging hardware into your cast is optional but can save time.



Image #7
Pulling the rubber and cast from the mother mold makes demolding easier.



Image #8
Peeling the rubber away from the cast instead of pulling the cast from the rubber can reduce cast breakage.



Image #9
Always use caution with using sharp objects!

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Finishing options for plaster life casts.

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