BucketGel™ 390 Alginate

Fast Curing Alginate for Pressing Objects Into

Accu-Cast™ BucketGel™ 390 alginate is a fast curing, firm alginate mold material that is ideal for pressing objects into to create a detailed negative impression. **BucketGel™ 390** has a set time of about 3 minutes when mixed with water that has a temperature of 90°F/32°C. You can cast LiquiStone™ plaster into the mold to make a reproduction.

TECHNICAL OVERVIEW

Accu-Cast™ BucketGel™ 390 Alginate Specifications			
Mix Ratio by Weight: 1 part powder to 4 parts water by weight			
Mix Ratio by Volume: 2 parts powder to 3 parts water by volume			
Specific Volume: 26 cu. in./lb	**Pot Life:** 2 minutes*	**Cure Time:** 3 minutes*	**Color : Yellow**

*Depending on water quality (–see "***Water Quality***" section below) and water temperature set to 90°F/32°C

PROCESSING RECOMMENDATIONS

Safety - Wear safety glasses to minimize contamination risk. Use only in a well-ventilated area. Wear a NIOSH-approved N95 dust mask when processing powdered material.

Preparation - These products have a limited shelf life and should be used as soon as possible. Materials should be stored and used in a warm environment (73°F/23°C). Mixing containers should have straight sides and a flat bottom. Mixing sticks should be flat and stiff with defined edges for scraping the sides and bottom of your mixing container. **BucketGel™ 390** powder may get warm in storage/shipping during the summer months which may cause the powder/water mixture to set too fast. To remedy, store **BucketGel™ 390** alginate in a cool area (60°F - 70°F or 16°C - 21°C) for 24 hours before using. Do not allow moisture to come into contact with unused **BucketGel™ 390** alginate powder.

Because no two applications are quite the same, a small test application to determine suitability for your project is recommended if performance of this material is in question.

Measuring, Water Quality and Water Temperature

Measuring - **BucketGel™ 390** is mixed 1 part powder to 4 parts water by weight or 2 parts powder to 3 parts water by volume. If measuring by volume, fill measuring cup with powder, and level off the top. If measuring by weight, use an accurate gram scale. You can vary the water level somewhat to change the consistency of the mixture. Less water will make the alginate thicker. More water will make the mixture thinner and easier to pour. ***Be Careful... too much water may result in the mixture not curing!*** Since powder is a compressible material, by weight mix ratio is recommended.

Water Quality - If water quality is in question, use distilled water heated to the correct temperature using a stove top or microwave oven if needed. Check water temperature using a thermometer. Water that has a high mineral content (calcium, phosphate, etc.) may cause any alginate to become "lumpy" or not set properly. If you have a water softener, the water will delay the pot life and cure time of the alginate. You can compensate for this by increasing the temperature of the water. A small-scale test is recommended prior to mixing large amounts.

Water Temperature **-** At 90° F / 32° C, **BucketGel™ 390** will have a working time of approximately 2 minutes and a demold time of about 3 minutes. Warmer water will cause the material to cure faster (less working time). Colder water will give a longer working time and slower demold time.

Mixing Alginate

Mixing **-** Alginate can be mixed by hand in a mixing container using a flat mixing stick with defined edges for scraping the sides and bottom of your mixing container as you mix. Review the "hand mix" technique video at **www.accu-cast.us/alginatehandmix.** Alginate material can also be mixed in the bag it comes in. Remove all jewelry and watches from hands before attempting to mix the material in the bag to prevent puncture to the bag. Review the "mix-in-bag" mix technique video at **www.accu-cast.us/alginatemixinbag.** Alternatively, you can mix the material using a turbine mixer (mechanical mixer) and portable drill. Review the "drill mix" technique video at **www.accu-cast.us/alginatedrillmix.** Wearing a NIOSH-approved N95 dust mask is recommended before mixing powdered alginate.

Pressing a Model into the Alginate

Once mixed, **BucketGel™ 390** can be poured into a container for making a mold. Gently press an object or model into the mold to make an impression in the mold.

For Best Results: Do not fully submerge the model into the alginate. Keep your model still until the **BucketGel™ 390** sets up. You will know the alginate has set when it is firm and no longer gel-like.

Curing and Performance

Curing **-** Cure time is approximately 3 minutes when mixed with water at 90°F / 32°C. Thinner molds made with more water in the mix may set up longer. ***Performance*** **-** Cured alginate molds exhibit moderate tear strength and are firm but flexible. Alginate molds are easy to cut into with a dull knife to demold castings. Mold is temporary and must be used immediately.

Safety First!

The material safety data sheet (MSDS) for this or any Smooth-On product should be read before using and is available on request. All Smooth-On products are safe to use if directions are read and followed carefully. ***Keep Out of Reach Of Children.***

Accu-Cast™ BucketGel™ 390

WARNING: IRRITANT TO EYES & MUCOUS MEMBRANES. Do not get in eyes, or in mucous membranes. Do not take internally. Do not breathe particulates. Use only with adequate ventilation. Wear a NIOSH-approved N95 dust mask when using this product.

First Aid: In case of eye contact, flush thoroughly with water for 15 minutes and get immediate medical attention. If swallowed, do not induce vomiting. Get immediate medical attention. If particulates are inhaled or if breathing becomes difficult, remove person to fresh air. If symptoms persist, get medical attention. **Keep Out Of Reach Of Children.**

IMPORTANT **-** The information contained in this bulletin is considered accurate. However, no warranty is expressed or implied regarding the accuracy of the data, the results to be obtained from the use thereof, or that any such use will not infringe upon a patent. User shall determine the suitability of the product for the intended application and assume all risk and liability whatsoever in connection therewith.

KEEP OUT OF REACH OF CHILDREN.
WARNING: Known to the state of CA to cause cancer,birth defects or other reproductive harm.
www.P65Warnings.co.gov

Casting into the Mold

All alginate molds will deteriorate quickly. It is recommended that you cast into the mold within 4 hours following demold. Materials commonly cast into alginates include LiquiStone™ Gypsum Cement, duoMatrix™ NEO (polymer modified gypsum, available from Smooth-On), wax, clay and very fast urethane resins (such as Smooth-Cast® 300Q). ***For Soft "Skin-Like" Castings*** you can cast FUN Silicone™ soft silicone rubber into **BucketGel™ 390** molds to make realistic hands or other body parts.

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Call Us Anytime With Questions About Your Application.

Toll-free: **(800) 381-1733** Worldwide: **(484) 546-0466**