



Accu-Cast™ LiquiStone™

Gypsum Cement for LifeCasting

Accu-Cast™ LiquiStone™ is an easy to use gypsum cement that can be cast into Accu-Cast™ alginate molds for reproducing human body parts for lifecasting. LiquiStone™ has a convenient mix ratio of 2 parts stone to 1 part water by volume and will have a working time of about 15 minutes. Castings can be demolded in about 3 hours. LiquiStone™ can be cast solid, or can be laid up by hand (thicker consistency required). Fully cured castings can be machined, sanded, primed and painted.

TECHNICAL OVERVIEW

LiquiStone™ Specifications

Mix Ratio: 2 parts LiquiStone™ to 1 part water by volume, or 2.3 parts LiquiStone™ to 1 part water by weight

Pot Life: 15 minutes

Demold time: 3 hours*

Full Cure: 24 hrs.

Color: White

Compressive Strength: 6000 psi (41.4 MPa)

Density, Wet: 110 lbs./ft³ (1762 kg./m³)

Density, Dry: 90 lbs./ft³ (1442 kg./m³)

% Maximum Expansion: 0.42%

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.

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.

Mixing LiquiStone™

Mix Ratio - The mix ratio for LiquiStone™ is 2:1 (powder:water) by volume or 2.3:1 (powder:water) by weight. Mix ratios can be varied to achieve desired consistency. Less water produces a thicker consistency which is ideal for hand layup molds. Too much water can weaken the physical strength of the LiquiStone™, lengthen curing time, and can result in water pooling on the surface of the casting which may cause unwanted runs of water flow along the surface of the finished reproduction.

*Depending on mass and water concentration. Data achieved under controlled laboratory conditions with freshly produced material, results may vary.

Soaking the LiquiStone™ - Sift LiquiStone™ into water slowly and evenly. DO NOT drop large amounts of LiquiStone™ gypsum cement directly into water as proper soaking may not occur. **LiquiStone™ must be fully dispersed in water before mixing.** Allow the LiquiStone™ to saturate in the water undisturbed for 2-3 minutes before mixing. Large batches may require longer soaking time.

Mixing LiquiStone™ - LiquiStone™ gypsum cement can 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/handkit. Alternatively, you can mix the material using a turbine mixer (mechanical mixer) and portable drill. Drill mixing amounts over 3 lbs (1.4 kg) is recommended.

Alternate Mix Ratios*

LiquiStone™ (weight)	Water (fluid)
8 oz / 227 g	4 oz / 118 mL
9 oz / 255 g	4 oz / 118 mL
10 oz / 284 g	5 oz / 148 mL
11 oz / 312 g	5 oz / 148 mL
12 oz / 340 g	6 oz / 177 mL
13 oz / 369 g	6 oz / 177 mL
14 oz / 397 g	7 oz / 207 mL
15 oz / 425 g	7 oz / 207 mL
LiquiStone™ (weight)	Water (fluid)
1 lbs. / 454 g	7 oz / 207 mL
2 lbs. / 907 g	15 oz / 444 mL
3 lbs. / 1 kg	21 oz / 621 mL
4 lbs. / 2 kg	29 oz / 858 mL
5 lbs. / 2 kg	36 oz / 1 L
6 lbs. / 3 kg	44 oz / 1 L
7 lbs. / 3 kg	51 oz / 2 L
8 lbs. / 4 kg	58 oz / 2 L
9 lbs. / 4 kg	66 oz / 2 L
10 lbs. / 5 kg	73 oz / 2 L
15 lbs. / 7 kg	109 oz / 3 L
20 lbs. / 9 kg	146 oz / 4 L
25 lbs. / 11 kg	182 oz / 5 L

Pouring LiquiStone™

When pouring into a bucket mold, pour a small amount into the mold then pick up the mold and rotate it to allow the LiquiStone™ to penetrate the deepest recesses of the mold and push air out. Continue pouring into the mold to complete the pour.

Curing and Performance

Curing - Demold time is approximately 3 hours. Full cure in 24 hours. Amount of water in the mixture will affect cure time.

Performance - Fully cured LiquiStone™ is a hard gypsum cement that can be machined, sanded, primed and painted.

Painting and Finishing

Repairing the Casting - You can mix a small amount of LiquiStone™ with a very small amount of water to create a thick paste-like slurry that can be applied to your finished casting to repair imperfections on the surface. Wet the area to be repaired first before applying a repair to avoid delamination.

Painting the Casting - It is generally recommended to wait at least 3 days at room temperature (73°F/23°C) at 50% RH before priming and painting your LiquiStone™ castings. In cold weather or in high humid conditions, you may need to wait 4-5 days. Acrylic paints or spray enamel spray paints can be used. Apply paint or primer thinly to avoid filling in details.

*Mix ratios can be varied depending on desired consistency. Less water makes the LiquiStone™ thicker which is ideal for hand lay up molds.

Safety First!

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

Accu-Cast™ LiquiStone™

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.



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