BodyGel™ 880 Alginate

Fiber-Reinforced Life Casting Alginate

Accu-Cast™ BodyGel™ 880 alginate is a fiber-reinforced alginate mold material that is an ideal choice for making molds which require coverage over a broad surface area of the body such as torsos or full body molds. **BodyGel™ 880** makes an excellent temporary lifecasting mold and has a set time of about 8 minutes when mixed with water that has a temperature of 80°F/27°C. You can cast LiquiStone™ gypsum cement, plaster, duoMatrix™ NEO (polymer modified gypsum) or Smooth-Cast™ 300Q ultra-fast urethane resin into the mold to make a reproduction. **IMPORTANT:** This product has not been tested and should not be used for dental applications.

TECHNICAL OVERVIEW

Accu-Cast™ BodyGel™ 880 Alginate Specifications

Mix Ratio by Volume: 1 part powder to 1 part water by volume - ***must pack powder tightly into measuring cup***

Mix Ratio by Weight: 1 part powder to 3 parts water by weight

Specific Volume: 26 cu. in./lb **Pot Life:** 5 minutes* **Cure Time:** 8 minutes* **Color :** Off-White

*Depending on water quality (–see "***Water Quality***" section below) and water temperature set to 80°F/27°C

PROCESSING RECOMMENDATIONS

Safety - Wear safety glasses to minimize contamination risk. Use only in a well-ventilated area.

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. **BodyGel™ 880** 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 **BodyGel™ 880** 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 **BodyGel™ 880** 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 - **BodyGel™ 880** is mixed 1 part powder to 3 parts water by weight or 1 part powder to 1 part water by volume. **IMPORTANT - If measuring by volume, you must pack the powder firmly into the measuring cup, 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!***

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 80°F / 27°C, **BodyGel™ 880** will have a working time of about 5 minutes and a demold time of approximately 8 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.** 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.**

Applying Alginate to the Body

Applying a Release Agent **–** **BodyGel™ 880** will not stick to most surfaces. When making a mold of areas with hair, a release preparation is recommended to prevent mechanical lock to hair. A cholesterol based hair conditioner can be applied to hair-covered areas prior to applying **BodyGel™ 880** alginate. It can be washed out of the hair easily after use.

Layup Mold **–** Once mixed, **BodyGel™ 880** can be layed up by hand onto the body.

For Best Results: Apply a thin coating of **BodyGel™ 880** to the surface of the model by brushing, smoothing the material on by hand or using a plastic spatula. Keep your model still until the **BodyGel™ 880** sets up. You will know the **BodyGel™ 880™** has set when it is firm and no longer gel-like.

Applying a Support Shell **–** Once the material cures, a support shell will be necessary to support the **BodyGel™ 880** mold. Gypsona® brand medical grade plaster bandages are ideal for this purpose, and are available from Smooth-On or your local Smooth-On distributor.

Curing and Performance

Curing **-** Cure time is approximately 8 minutes when mixed with water at 80°F/27°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. Mold is temporary and must be used immediately.

Safety First!

CAUTION: Do not inhale dust. In case of eye contact, flush thoroughly with water. Children should not use this product without adult supervision.

The International Agency For Research on Cancer (IARC), which is part of the World Health Organization, has rated free crystalline silica a "Group 1" carcinogen, known to cause cancer.
BodyGel™ 880 alginate does not contain free crystalline silica.

Read the Technical Bulletin and MSDS before using this material.

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, 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 **BodyGel™ 880** molds to make realistic torsos or other body parts.

How Much BodyGel™ 880 Do I Need?

Anatomy	*XT880**
Front Torso	1.5 lbs.
Full Torso (Front & Back)	3 lbs.
Full Body	15 lbs.

*This guide is offered as a reference tool only. It is an estimation and actual amounts needed will vary from individual to individual. **End User assumes full responsibility for own calculations of material needed.**

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