



TECHNICAL DATA SHEET

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IDENTIFICATION

Product identifier

Product Name ELASTOCRETE Kit (concrete binder/and or grout) white

Details of the supplier of the safety data sheet

Manufacturer Address

Elastocrete 688 East Chad Ranch Road, Veyo, UT 84782 Telephone (435) 772-1345

DESCRIPTION

ElastoCrete is a 2 component, inorganic polymer modified cement with many superior properties compared with traditional cements.

When cured properly, compressive strengths of 7,500-10,000 PSI, and flexural strengths of 2,200-4,000 PSI can be achieved.

ElastoCrete, cured properly, will not shrink or crack like conventional overlay materials.

ElastoCrete is also unique in its ability to be poured from a feathered edge to several inches thick.

ElastoCrete is compatible with many materials that are not compatible with conventional concretes. Some examples are; wood, glass, coal slag, and paper.

Elastocrete does not have a high PH like standard concrete and can accommodate most pigments.

ElastoCrete has very high flexural strength, but what is more impressive, is the degree to which the product can bend without breaking, and then return to its original position.

ElastoCrete is designed to be used in areas that are not exposed to standing water for long periods of time.

Storage

Product is best stored in a dry environment.

Shelf-life for Part A is 2-5 years

Shelf-life for Part B is 12 months for self-leveling and 2-5 years for Pressed modified.

Mixing

Best performance is achieved when liquid is between 55-75 Degrees F (13-25 C)

Pour liquid in a 5-gallon (or larger) bucket.

Add in 20 oz. of water per kit. This will help with strength and flow. (Do not add anymore than 24 oz.)

If adding integral pigments, combine pigments into bucket with Liquid.
Measuring and recording the amount of pigment used is recommended.

Add cement blend, and sand, leaving approx. 1/4 of the sand out until initial mixing is complete. Mix thoroughly with a

high-speed mixer (700 RPM) starting on a lower speed and increasing to full speed. Move mixer along bottom of bucket in a counterclockwise movement to assure all materials is evenly mixed.

Using a margin trowel, scrape the edges of the bucket to remove any dry material that has not been mixed properly.

Add the remainder of sand to the mix, and mix thoroughly again. You can also add aggregates into the mix. Normal amount of sand to be added can vary depending on type. A general rule is to not exceed 22 KG or 50 lbs. of sand per kit. When using aggregates, it is advised to mix in sand first, and then add aggregate.

The mix can be used immediately, but for maximum fluidity, depending on the temperature of the material, let the mix sit for 5-15 minutes and then remix. If the material is warmer, it will need less time to sit and sweat in. If it is cooler you will want it to sit and sweat longer.

ElastoCrete kits may be divided into smaller batches. This is done by weighing out the different ingredients. It is very important to shake or mix the Part B very well before splitting it. The liquid comes packaged at a net weight of 8.6 lbs., and the powder comes packaged at a net weight of 16.5 lbs.

Sand mix designs

You can create your own mix designs using ElastoCrete.

It is important to have sand with particle packing to achieve maximum performance. Particle packing is achieved by having a wide range of particle sizes in your sands.

To test your mix design, pour your mix, and then blow the material with a high CFM leaf blower. Material should level and smooth out. If the mix design has too much coarse sand and or fine sand, then waves blown on the surface will not level with blowing. It is important to have the proper gradation of sands. We recommend the following guidelines for standard mix designs.

Base Mix Design:

50 lbs. of 16 minus grit-graded marble sand know as POOL SAND (you can purchase this from ElastoCrete).
Add 20 oz. water to the mix.

Alternative Base Mix Design:

25 lbs. 16 minus grit graded marble sand (you can purchase this from ElastoCrete)
25 lbs. 30, 40 or 70 medium grit silica or quartz sand.
Add 20 oz. water to the mix.

This mix should give 15-18 square feet of coverage at 3/8" thickness per kit. Coarse sand can be substituted for a medium or fine sand. As sands get finer, less sand must be used to achieve workability.

Marble Mix Design:

35-40 lbs. 30 mesh minus white marble sand (you can purchase from ElastoCrete)
Add 20 oz. water to the mix.

Alternative Marble Mix Design:

18 to 20 lbs. 30 mesh minus white marble sand (you can purchase from ElastoCrete)
18 to 20 lbs. 60-70 grit fine silica sand.
Add 20 oz. water to the mix.

Note: When adding 20 oz. of water to the mix, **COLD WATER** should be used when working with warmer material and **HOT WATER** should be used when working with colder material. Best performance is achieved when material is between 55-75 Degrees F (13-25 C). Adjusting water temp can help you get closer to desired material temp.

We have found that a mix of marble and silica sands yield the best overall mix. These mix designs are approximate weights. You may choose to use more or less sands in your design to achieve desired workability. Our goal is to help bring down costs to contractors by being able to source local sands. We are happy to help you create your own mix design.

Surface preparation for floors

Over Concrete:

Surface needs to be flat, and may require surface grinding to flatten. Variances in floors are recommended to be less than 1/8 inch in a 10ft. span. A concrete self-leveling product may be used instead of grinding. Concrete must be dry and dust free. The concrete must be primed with a 100% solids penetrating epoxy, or a synthetic waterborne rubber such as REDGUARD. A synthetic waterborne rubber is easier to apply and only needs a 20-minute cure time. Apply fiberglass mesh on surface when wet with primer or use spray adhesive to apply fiberglass. Overlap all edges a minimum of 2 inches. Epoxy must be fully cured before application of Elastocrete. Do NOT use acrylic bonders or water based epoxy primers.

Over Concrete with CushionCrete:

Same surface prep required as above. Instead of primer, a rubber mat may be glued to the concrete surface. Fiberglass mesh can be stapled down with a brad stapler to rubber matting, always overlapping a min. of 2". ElastoCrete can be poured directly on the rubber.

Over Wood:

Apply a synthetic waterborne rubber, such as REDGUARD, or contact cement as a primer on wood subfloor. If you don't want to have the concrete bonded directly to the wooden subfloor, a landscaping fleece may be used instead of a primer. Next Apply fiberglass mesh over primer or fleece, stapling it to the subfloor. Always overlap mesh a min. of 2" on all edges.

Applying ElastoCrete

Apply ElastoCrete with a gauge rake, or by simply pouring out the mix into the desired pattern. Using a leaf blower, blow over the surface to move the mix where needed, and smooth out the mix at the same time. ElastoCrete may also be troweled out using the PRESSED ADDITIVE to create a non-leveling mix. There are many different application techniques, and we encourage experimenting with the material to get very unique concrete creations.

Unlike other concrete products, ElastoCrete will bond to itself indefinitely. This means that you can do logos, and or grid patterns that bond together to form a seamless floor even though they were poured at different times. Likewise, Pressed and pour mixes are 100% compatible.

Cure

ElastoCrete should reach 70% of its cure within 24 hrs. For floors, we recommend waiting 12-18 hrs. to start grinding after pouring. Elastocrete will not reach a full cure for 30 days, however it is safe to finish and apply coatings as long as the concrete is hard enough for grinding. If grinding is difficult because equipment is gumming up, then the material needs more time to cure. If the temperature is colder, the mix will cure much slower.

Using ElastoCrete as a Grout

An ElastoCrete kit can be used, without any sands added, as a grout to fill pinholes

Floors:

Mix Liquid (jug) and powder (cement bag) with a high-speed mixer, adding pigment for desired color. Using a little less liquid than provided in the mix will help speed up the cure.

Standard quantity to mix (1/2 of a kit): 8.25 lbs of liquid: 4.3 lbs of powder.

If applying with ElastoCrete grout pads:

Spread material out evenly on the area you are going to work in. Working section-by-section works best. Do a pass with a machine with a 25-50% overlap. Take of the excess grout with a smoother trowel or a skip trowel. Move that grout to new area to work in. (REFER TO HOW TO GROUT ELASTOCRETE FLOOR VIDEO FOR DEMONSTRATION)

If applying manually:

Apply grout on clean floor with a hard rubber squeegee. Work the grout back and forth vigorously until all pinholes are filled. With a taping knife or trowel, remove all excess grout. Working section-by-section works best. Grout will usually cure hard enough for removal of excess grout within 8-12 hours however we recommend waiting 24 hours to seal the concrete after grouting.

Countertops:

Mix liquid and powder at a 4:3 ratio by weight 4(liquid): 3(powder), adding pigment for desired color. This can be mixed in a plastic cup.

Standard quantity to mix (In a 16oz cup): 200 grams of liquid: 150 grams of powder.

If applying with ElastoCrete grout pads:

Spread material out evenly on the area you are going to work in. Do a pass with a machine with a 25-50% overlap. Take of the excess grout with a taping knife or pool trowel. Move grout to new area to work in. (REFER TO HOW TO APPLY GROUT VIDEO FOR DEMONSTRATION)

If applying manually:

Go over surface with a damp sponge. Apply grout on clean surface with a hard rubber squeegee, or taping trowel. Work the grout back and forth vigorously until all pinholes are filled. With a taping knife or trowel, remove all excess grout. Working section-by-section works best. Grout will usually cure hard enough for removal of excess grout within 8-12 hours however we recommend waiting 24 hours to seal the concrete after grouting.

We recommend that grout be removed with 100 grit resin diamond pads or with 100 grit sand paper.

We recommend sealing ElastoCrete with a compatible sealer. We have found good compatibility with solvent borne acrylics and solvent borne epoxies. We also have our own sealers that may be used. Make sure to test any sealers for compatibility.
