1. Product Name

- ElastoCrete™

2. Manufacturer

ElastoCrete LLC
688 East Chad Ranch Road
Veyo, UT 84782

Phone: 435-772-1345
Fax: 435-214-2540

Email: support@ElastoCrete.com
Web: www.ElastoCrete.com

3. Product Description

Basic Use

For use as flooring, countertops, wall panels, tables, fire pits, etc., ElastoCrete is a two-component, polymer-modified cement with many superior properties compared with traditional cements. It has reduced risk of cracking and, when properly cured, flexural strengths of 4000 PSI and compressive strengths of up to 10,000 PSI can be achieved.

The flexural properties can be seen in **this video.**

ElastoCrete bonds to organic and inorganic materials and can be used over troubled surfaces, wood, rubber underlay and even commercial carpet with a minimal risk of cracking. Large square footage can be achieved without seams. Additionally, ElastoCrete can be used as an effective asbestos abatement.

ElastoCrete allows unlimited color options using regular paint pigments and most other pigments are compatible. The strength and flexibility of ElastoCrete significantly decreases the likelihood of damages that may need repair and, in the event repair is needed, ElastoCrete will bond to itself making repairs easy and consistent.

Composition and Materials

ElastoCrete is a two-component, polymer-modified cement.

See Table 1 for Performance Characteristics and Testing Results.

Benefits

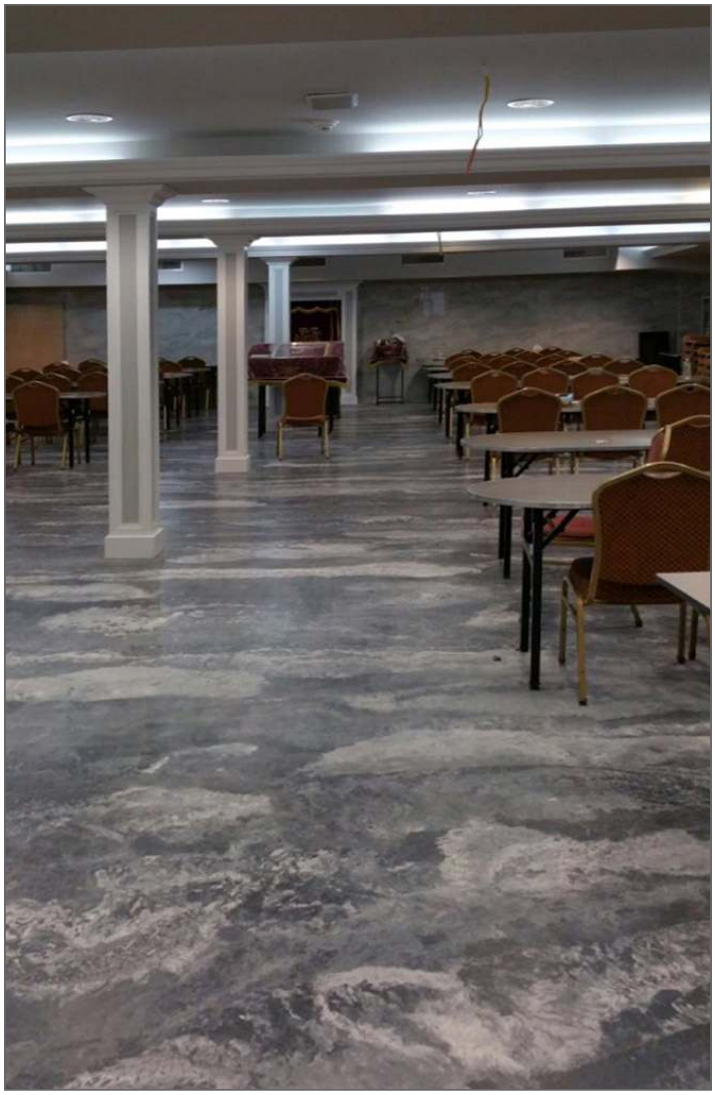
- Unlimited color options using regular paint pigments
- Unlimited stone, GFRC, granite, marble, quartz patterns
- Ability to bond with troubled surfaces, wood, rubber underlayments and commercial carpet
- Can be used as an effective asbestos abatement
- Can be used with wood and other organic materials with no adverse effects
- Inherent anti-microbial properties
- Able to cover large square footage areas without seams.
- The CushionCrete™ system utilizes a rubber underlayment to create a floor with anti-fatigue properties: softer step, reduced stress on joints, knees, ankles, hips; **link to video**
- Used with CushionCrete, ElastoCrete creates an efficient sound barrier
- Bonds to itself indefinitely, making repairs easy and consistent
- Can be installed from feathered edge to slab thickness in the same pour without compromising structural integrity
- Fast cure time: if cover cured, ElastoCrete can be ready to grind in as little as 12 hours

Options/Accessories

The CushionCrete system uses the unique abilities of ElastoCrete to expand and contract depending on the movement and or deflection of the substrate. The CushionCrete system uses a rubber mat that is glued to the concrete surface. For installation fiberglass mesh should be stapled down with a brad stapler to rubber matting, always overlapping a minimum of two inches. ElastoCrete can be poured directly on the rubber. This can be used for many applications where anti-fatigue qualities would be beneficial in providing a more cushioned step.

Table 1—Performance Characteristics and Testing Results

Flexural Strength	ASTM C293	4000 PSI
Compressive Strength	ASTM C109	7500 PSI
Bond Strength	ASTM C1583	420 PSI
Abrasion Resistance	ASTM C779	0.110
Coefficient of Thermal Expansion	ASTM C531	3.886 E-06
Linear Shrinkage	ASTM C531	0.00198
Impact Resistance	MIL-D-3134	No Cracking, No Detachment
Scaling Resistance	ASTM C672	35 cycles-visual rating = 2 50 cycles-visual rating = 3



Product Limitations

ElastoCrete is not recommended in areas that are exposed to standing water.

SDS Sheets

All SDS sheets are downloadable in PDF format on **this page**, scroll down to the Downloads section.

4. Technical Data

Applicable Standards

American Society of Testing and Materials (ASTM)

- **ASTM C109** Standard Test Method for Comprehensive Strength of Hydrolic Cement Mortars
- **ASTM C293** Standard Test Method for Flexural Strength of Concrete
- **ASTM C531** Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings and Polymer Concretes
- **ASTM C672** Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacings and Polymer Concretes
- **ASTM C779** Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces
- **ASTM C1583** Standard Test Method for Tensile Strength of Concrete Surfaces and the Bond Strength or Tensile Strength of Concrete Repair and Overlay Materials by Direct Tension (Pull-off Method)

United States Military Specifications

- **MIL-D-3134** Military Specification: Deck Covering Materials

5. Installation

Mixing

Best performance is achieved when liquid is between 55–75 degrees F (13–25 degrees C).

Pour liquid in a five gallon bucket (or larger). 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 approximately ¼ 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 are 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. Aggregates may be added into the mix also.

The amount of sand to be added can vary depending on type but a general rule is to not exceed 20 kg or 44 pounds of sand per kit. The average sand loading is 34–40 pounds depending on aggregates that are being used. The mix can be used immediately, but for maximum fluidity, let the mix sit for about five minutes and then remix. This is especially helpful when the liquid and powder are at a cooler temperature. If the mix is too thick, up to an additional four ounces of water per ElastoCrete kit may be added. If water is added the overall strength will be reduced by approximately five percent. Less than the total amount of liquid of Part B can be used for desired workability.

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 16½ pounds and the powder comes packaged at a net weight of 8.6 pounds.

Sand Mix Designs

A variety of custom mix designs are possible 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 sands. To test the mix design, pour the mix, 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. ElastoCrete LLC recommends the following guidelines for standard mix designs.

Base Mix Design: 15 pounds 16 minus grit gradated marble sand, (available from ElastoCrete), 25 pounds 20 grit, 30 grit or 40 grit coarse silica or quartz sand. This mix should give 15 square feet of coverage at ⅜ inch 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. For example, using a 30-grit silica sand, approximately 23 pounds are used.

Marble Mix Design: 25 pounds 30 grit minus white marble sand (available from ElastoCrete)

Alternative Marble Mix Design: 12.5 pounds 30 grit minus white marble sand, available from ElastoCrete, 12½ pounds 60-70 grit fine silica sand. A mix of marble and silica sands yield the best overall mix.

These mix designs are approximate weights. More or less sands in may be used to achieve desired workability. ElastoCrete's goal to is help bring down costs to contractors by enabling them to source local sands and we will always assist with custom mixes.

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 ¼ inch in a 10 foot 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 100 percent 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. Overlap all edges a minimum of two 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 two inches. 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. To avoid 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 minimum of two inches on all edges. See **this video** for more information.

* **Note:** RedGuard is manufactured by:
Custom Building Products
7711 Center Ave. Ste 500
Huntington Beach, CA 92647
800-272-8786
http://www.custombuildingproducts.com/

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 an alternative ElastoCrete liquid stabilizer 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; as a result, logos and/or grid patterns will bond together to form a seamless floor even though they were poured at different times. Likewise, pressed and pour mixes are 100 percent compatible.

Cure

ElastoCrete should reach 70 percent of its cure within 24 hours. For countertops, a covered cure is recommended. A covered cure will trap all moisture and air movement in close proximity to the concrete. This will speed cure times (90 percent of cure within 24 hours) and allow for grinding in as little as 6 hours (there are videos available which show the recommended covered cure).

For floors, ElastoCrete LLC recommends waiting 24 hours 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.

6. Availability and Cost

Please contact ElastoCrete LLC for lead times and pricing.

7. Warranty

ElastoCrete LLC warrants to the purchaser of its products that such products are free from manufacturing defect. ElastoCrete LLC does not warrant or guarantee the workmanship performed by any person or firm installing its products. ElastoCrete's obligation under this warranty is limited solely to the original purchaser and solely to the remedy of replacement in kind of any product which ElastoCrete sold which may prove defective in manufacture within one year from date of installation, provided said product was stored correctly and installed within the products shelf life, by the original purchaser.

In no event shall ElastoCrete LLC be liable for the incidental or consequential damages. This warranty is expressly given in lieu of all other warranties expressed or implied, including the warranties of merchantability and suitability for use and all other obligations or liabilities on ElastoCrete's part and ElastoCrete neither assumes nor authorizes any person or persons to assume any other liability in connection with the sale of an ElastoCrete product.

This warranty shall not apply to any ElastoCtrete products, which have been subject to adulteration, alteration, abuse or misuse. ElastoCrete LLC makes no warranty whatsoever in respect to accessories, parts or materials not supplied by ElastoCrete LLC, which are used in connection with its products. The term "original purchaser" in this warranty means that person, corporation or entity to whom ElastoCrete sold its product or products

8. Maintenance

Use mild soaps and detergents with a neutral PH to clean ElastoCrete Surfaces. Times between re-sealing vary depending on traffic.

9. Technical Services

ElastoCrete offers in-depth hands on training **here.**

ElastoCrete also offers online video training **here.**

10. Filing Systems

- Additional product information is available from the manufacturer upon request