



Applicable Standards

- ✦ ASTM C109 Standard test methods for Compressive Strength of Hydraulic Cement and other Mortars. Utilizing 2" Cube Specimens
- ✦ ASTM C1583 Standard test method for tensile strength of concrete surfaces & the bond strength of concrete repair and overlay materials.

Benefits

- ✦ FirmeCrete® Floor & Wall Coatings come in White & Grey. Allowing the coating to be blended to any color including Bright or Pastel colors.
- ✦ FirmeCrete® Floor & Wall Coating system is intended to be etched or polished resulting in a beautiful exposed sand or aggregate finish. Suitable for interior & exterior surfaces.

Related Sections

- ✦ 03 01 30 - Resurfacing of Cast in Place Concrete
- ✦ 03 01 40 - Resurfacing of Precast Concrete
- ✦ 03 35 00 - Concrete Topping
- ✦ 09 61 13 - Slip Resistant Flooring
- ✦ 32 01 26 - Concrete Overlays



Before FirmeCrete® Floor Coating

After FirmeCrete® Floor Coating

Product Data Sheet

Description: FirmeCrete® Floor & Wall Coatings are two-part polymer modified cement based architectural toppings and wall coatings. Used to resurface existing old deteriorated concrete, achieve more consistent sanded or exposed aggregate finish than traditional cast-in-place concrete. FirmeCrete® is not only visually stunning it will tenaciously bond to the existing substrate. At only 1/8"- 1/2" thick. FirmeCrete® can withstand vehicular traffic within 72 hours & heavy foot traffic in 24 hrs. FirmeCrete® Floor & Wall Coatings are available in White & Grey allowing the material to be tinted to any color. FirmeCrete® can be broadcasted or blended with any 1/4"- 1/2" or smaller natural aggregate, plastic aggregate, including glass, mirror, and sea shells.

Uses: FirmeCrete® is intended to be used anywhere you want to enhance existing concrete. Both interior & exterior applications. FirmeCrete® can be used on residential or commercial hardscape or parking structures. FirmeCrete® does not have any traffic boundaries. Our Floor & Wall Coatings can be used to repair old, discolored or damaged concrete. FirmeCrete® Floor & Wall Coating can be honed or polished and can be mixed with any liquid or powder integral color.

Advantages: Prepackaged for easy two-part mixing leaving a beautiful sand finish. FirmeCrete® has the flexibility to be blended with any aggregate or sand. Contact us for custom

continued on next page.



Compressive Strength ASTM C109:

24 Hours	2200 psi (15.2 MPa)
7 days	4200 psi (28.9 MPa)
28 days	5200 psi (35.9 MPa)

Hot Weather: Environmental temperatures above 75°F (23°C) may speed up setting time. When applying coatings in higher temperatures, keep material cool, and follow ACI 305 Procedures for Hot Weather Concrete work.

Cold Weather: Environmental below 60°F (15°C) may delay setting time and reduce the rate of 24 hour strength. You may need to reduce the surface retardant.

Shelf Life: FirmeCrete has a shelf life of 12 months when stored properly in a dry location, protected from moisture, out of direct sunlight, and in an undamaged package.

Yield & Packaging: FirmeCrete® is available in 50-lb (22.7-kg) buckets with a 5 gal Activator Part A. 5 gal. Activator Part A is to be blended with up to 3.5 bags of sanded material. Yield is 0.45 ft³ per 50-lb (22.7-kg).



Before FirmeCrete® Wall Coating

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aggregate & sand blends that can be created to color match existing concrete or fit any of your creative needs. This includes using recycled plastic & recycled glass aggregates that promote green building.

Surface Preparation: *It is highly recommended to take the FirmeCrete® training course prior to installing FirmeCrete Floor & Wall Coatings.* The floor or wall should be tested for moisture vapor. With a relative humidity probe or a concrete moisture meter. The testing devise should be in compliance with ASTM-F2170 or ASTM-F2659, to determine levels of vapor emissions. After testing for moisture and if the reading is acceptable. The concrete substrate that is going to be coated must be roughened to a CSP of 2 or greater for walls and CSP of 3 or greater for flooring installation.

Mixing: Remove the ACTIVATOR Part A lid from the 5 gallon bucket and **mix the ACTIVATOR Part A Thoroughly before using.** The 5 gallons of ACTIVATOR Part A is enough liquid to blend 3.5 bags of Floor or Wall Mix. Pre-Mix ACTIVATOR with a jiffy mixer each day before use. Add 4 – 6 quartz of ACTIVATOR Part A to your mixing container. (Do not exceed 6 quartz of Liquid part A per 50 lb. bag of FLOOR or WALL MIX part B) Add color pack if needed to liquid Part A and mix in order to break up any color pigment lumps. Slowly add part B and mix with a double box or helical mixing paddle. Mix for 3-5 minutes until mixture is smooth and lump free. Size #1 Aggregates can be added to the FLOOR MIX part B at a 1:1 ratio by volume to create an exposed aggregate finish. 64 oz. Sparkle Packs can also be added to FLOOR or WALL MIX blend to enhance the sand finish effect.

Application: *It is highly recommended to take the FirmeCrete® training course prior to installing FirmeCrete Floor & Wall Coatings.* Apply the blended FirmeCrete® Floor & Wall Coating to the roughened floor or wall. Best practice is to set up forms for both walls and floors then rod/screed off the forms to ensure the flattest end result and the proper thickness. (It is okay to simply trowel the material onto the wall or floor with a gauge rake or notch trowel, though it is harder to ensure proper thickness and keep the floor or wall flat.) After the floor or wall has been flattened out, float the wall or floor with a magnesium, resin float or rubber float. Then trowel the floor and wall to a smooth trowel finish eliminating any trowel marks or sand pit holes. If the FLOOR or WALL MIX has chatter marks the material is too thin. Once the coating is completely smooth apply the desired surface retardant or leave the coating bare to use FIRME PADS to expose/hone/polish to the desired finish. The next day wash off the surface retardant from the coating. Surface retardants or FIRME PADS are preferred method of exposing the aggregates.

Final Clean Down: Allow coating to cure a minimum of 72 hours after installation. Apply a mixture of 3 parts potable water to 1 part of an Acidic Etcher/Cleaner and pressure wash the coated area in order to remove any cement laitance or cement Haze.

Sealing & Protecting: Apply FIRMECRETE PROTECTOR (Silane/Siloxane breathable sealer). Apply FIRMECRETE PROTECTOR with a pump up sprayer or low pressure airless sprayer with a tip size of .035 to .051. FirmeCrete Coatings should always be sealed.

Limitations & Precautions: Products are to be applied only when surface temperatures are above 50°F and rising and not to exceed 100°F. Do not apply coatings when precipitation is expected within 24 hours following completion of application. Do not allow materials to freeze. All concrete floors not poured over an effective moisture vapor retarder are subject to possible moisture vapor transmission that may lead to blistering and failure of the coating system. It is the coating applicator's responsibility to conduct calcium chloride testing in compliance with ASTM F1869, or relative humidity probe testing in compliance with ASTM-F2170 or ASTM-F2659 to determine if excessive levels of vapor emissions are present before applying any coatings.

Installation should be installed by an Approved Trained Contractor. For information and locating approved contractors in your area or for training class dates. Please contact FirmeCrete (909) 223-9396 or email us Support@FirmeCrete.com

WARNING: DO NOT BREATHE IN DUST. AVOID CONTACT WITH SKIN AND EYES. Use material in well-ventilated areas only. Exposure to cement dust may irritate eyes, nose, throat, and the upper respiratory system/lungs. Silica exposure by inhalation may result in the development of lung injuries and pulmonary diseases, including silicosis and lung cancer. Seek medical treatment if you experience difficulty breathing while using this product. The use of a NIOSH/MSHA-approved respirator (P-, N- or R-95) is recommended to minimize inhalation of cement dust. Eat and drink only in dust-free areas to avoid ingesting cement dust. Skin contact with dry material or wet mixtures may result in bodily injury ranging from moderate irritation and thickening/cracking of skin to severe skin damage from chemical burns. If irritation or burning occurs, seek medical treatment. Protect eyes with goggles or safety glasses with side shields. Cover skin with protective clothing. Use chemical resistant gloves and waterproof boots. In case of skin contact with cement dust, immediately wash off dust with soap and water to avoid skin damage. In case of skin contact with wet concrete, wash exposed skin areas with cold running water as soon as possible. In case of eye contact with cement dust, flush immediately and repeatedly with clean water, and consult a physician. If wet concrete splashes into eyes, rinse eyes with clean water for at least 15 minutes and go to the hospital for further treatment. Please refer to the SDS for additional safety information regarding this material.

LIMITED WARRANTY: FirmeCrete warrants its materials to be of good quality and, at its option, will replace or refund the purchase price of any material proven to be defective within one (1) year from date of purchase. The above remedies shall be the limit of FirmeCrete responsibility. Except for the foregoing, all warranties expressed or implied, including merchantability and fitness for a particular purpose, are excluded. FirmeCrete shall not be liable for any consequential, incidental, or special damages arising directly or indirectly from the use of the materials.

WARNING: CANCER and REPRODUCTIVE HARM - www.P65Warnings.ca.gov