

SILPRO

FASTCRETE®

Structural Repair and Leveling Mortar
Rapid-Setting / One Component
Portland Cement-Based
Polymer-Modified / Fiber Reinforced
1/8" – 3/4" Use Neat
3/4" – 3" Add Crushed Stone

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Silpro Fastcrete® is a Portland cement-based, polymer-modified, fiber-reinforced, rapid-setting, one component, structural repair and leveling mortar.

Use **Fastcrete®** for interior and exterior restoration of deteriorated concrete elements and slabs. It may be placed into forms or used in horizontal applications. **Fastcrete®** may be used as an exposed industrial wear surface or as an underlayment for resilient, carpet, laminate, ceramic tile, and wood flooring.

ADVANTAGES

- Provides a compatible bonding surface for tile and carpet adhesives
- Can be nailed into
- Unaffected by water after cure
- Reduces down time — can be in service in 1-3 hours depending on use and conditions
- Low shrinkage — provides a stable bond line for improved adhesion
- Excellent abrasion and impact resistance
- Resists freeze/thaw damage
- Thermally compatible with concrete
- Excellent adhesion and increased flexural strength

TEST DATA

Set Time Vicat		(ASTM C-191)
20 Minutes — Initial	30 Minutes — Final	
Compressive Strength		ASTM C-109
1 Hour 2000 psi	1 Day 5000 psi	
3 Hour 3500 psi	28 Day 7500 psi	
Tensile Strength		ASTM C-190
7 Day 400 psi	28 Day 470 psi	
Flexural Strength		ASTM C-348
7 Day 1250 psi	28 Day 1400 psi	
Shear Bond Adhesion		ASTM C-882
7 Day 1950 psi	28 Day 2550 psi	
Modulus of Elasticity		ASTM C-469-94
4.22 x 10 ⁶ psi		

Test data is based on a mixing ratio of 2.75 quarts (2.6l) of water per bag.

SURFACE PREPARATION

Floors: All surfaces must be clean and sound. Remove all deteriorated concrete, loose material, oil, grease, wax, water-soluble materials and all foreign matter. A mechanical method of surface preparation is recommended.

Road and Bridge repair: In addition to the above, saw cut area square at least 1" deep.

APPLY A TEST PATCH

To confirm the suitability of the surface for adhesion of the coating, and that the final appearance and function will be as the owner, architect, and contractor expect, install a 10' x 10' test patch at the maximum designed thickness anticipated on the project and subject it to anticipated service conditions before beginning the entire job.

SURFACE CONDITIONING

For ease of application and optimum performance dampen the area to be coated, except wooden floors, with clean water to create a Saturated Surface Dry (SSD) condition. Remove any standing water and let the surface dry before applying the **C-21 All Acrylic®** primer. In place of **C-21 All Acrylic®** primer a slurry of **Fastcrete®** mixed with water may be applied over a rough mechanically prepared surface.

PRIMING

Surfaces will be easier to work and yield a better bond if they are primed with **Silpro C-21 All Acrylic®**.

Over concrete — For optimum performance prime concrete surfaces with undiluted **Silpro C-21 All Acrylic®**.

Over wood (interior only) — A primer coat of 1 part **C-21™** : 1 part water should be applied directly to wooden surfaces and allowed to dry. Re-prime with undiluted **C-21™** just prior to coating with **Fastcrete®**.

Note: Use only new plywood decking as a substrate.

Prime the surface just prior to applying **Fastcrete®**. **Fastcrete®** may be applied while the surface is either tacky or dry.

MIXING

Mixing Proportions:

Use 3 1/2 quarts of clean, potable water for each 50# bag of **Fastcrete**. Small adjustments in water (several ounces) may be made to adjust workability.

Mixing Procedures:

Mechanical mixing is preferred for best results.

Applications 1/8" – 3/4":

In a clean container: Using a slow speed 1/2 inch drill (500-650 rpm) with a plaster-type mud paddle, slowly add the **Fastcrete** to the mixing water while the drill is turning. Mix for only 2-3 minutes until a lump-free, trowelable consistency is achieved.

In a mortar mixer: Place the water in the mixer. Break a minimum of two bags of **Fastcrete®** in the turning blades. Mix for only 2-3 minutes until a lump-free, trowelable consistency is achieved.

For Customer Service, Call Silpro at 1-800-343-1501

MIXING (CONT.)

Avoid over mixing as this will entrap air reducing adhesion and strength.

In a mortar box with hoe: Place a little of the water in the mortar box, add the **Fastcrete**[®] powder, then add the rest of the water. Mix **Fastcrete**[®] until a lump-free, trowelable consistency is achieved. **Do not over water.**

Applications 3/4" – 1 1/2" thick:

Add 25# of clean, washed and drained 3/8" crushed stone to each bag of mixed **Fastcrete**[®]. Thoroughly blend in the stone to achieve a uniform distribution in the mix.

Applications 1 1/2" – 3" thick:

Add 40# of clean, washed and drained 3/8" crushed stone to each bag of mixed **Fastcrete**[®]. Thoroughly blend in the stone to achieve a uniform distribution in the mix.

Do not mix more material than can be placed in 15 minutes.

APPLYING

Immediately place the **Fastcrete**[®] after mixing, working the material into all holes and crevices, eliminating any air pockets to assure maximum bond. Trowel surface to achieve proper elevation.

All control and expansion joints must be carried through the **Fastcrete**[®]. Do not bridge them because they may crack.

Note: If featheredging is needed, or if application is from 1/8" to featheredge, use Silpro **Speedtop**[™] (rapid-setting) for interior applications, or Silpro **Masco**[™] (normal-setting) for interior or exterior applications. See Product Data Sheets.

Clean up: Clean all tools with water before **Fastcrete**[®] hardens. If **Fastcrete**[®] hardens on tools it must be mechanically removed.

CURING

Fastcrete[®] does not require special curing under normal conditions. When exposed to extreme heat or drying winds, however, ultimate strength and bonding will be improved by applying it to a substrate that is Saturated Surface Dry (SSD) and keeping the surface of the **Fastcrete**[®] damp. Cover with sheet plastic as soon as dry to the touch but do not soak or saturate with water.

WAITING TIMES BEFORE COVERING

- Thinset mortar with ceramic tile can be placed in approximately 1 hour.
- Floor coverings that are not moisture sensitive (most carpets), can be placed in approximately 2 hours.
- Moisture sensitive floor coverings, such as sheet vinyl, rubber, VCT, and carpets with non-porous backings, may usually be placed after 12 hours under normal conditions.

Follow flooring manufacturer's requirements on waiting times.

Test for moisture emission rate:

The Carpet and Rug Institute (CRI) says, "In order to prevent glue-down installation failures due to moisture and alkalinity, concrete floors should be tested for moisture emission rate."

The moisture emission rate of a concrete floor is expressed in lbs./1,000 sq. ft./24 hours. Many manufacturers recommend 3-5 lbs.



CAUTION!

SILPRO offers products that may contain cement, latex, epoxy, and other chemicals. Please review the Safety Data Sheet before the use of this product.

WAITING TIMES BEFORE COVERING, (CONT.)

Consult manufacturers of floor coverings and adhesives for their requirements on moisture emission rates for specific coverings.

WAITING TIMES BEFORE USING

Floors: Patched areas can be opened to foot traffic in 1 hour and to forklift traffic in approximately 3 hours.

Road and bridge repair: Repaired areas can be put back into use for light traffic in 1 hour and for heavy traffic in 3 hours at 70°F. (21°C.). Lower temperatures will result in slower set times and slower strength gains, so plan accordingly.

LIMITATIONS

- **Fastcrete**[®] should be applied only when the temperature of the air, surface, and material is above 50°F. (10°C.) and rising and will not fall below that for 24 hours after application.
- Protect **Fastcrete**[®] from strong winds and/or direct sun during placement and finishing.
- Minimum depth for road and bridge repair is 1".
- Do not re-temper.

PACKAGE SIZE

50# Plastic lined bag (22.7 kg)

COVERAGE PER 50# BAG

Neat (as it comes from the bag): 25 sq. ft. at 1/4" thickness

Extended with 25# of stone: 4 sq. ft. at 2" thickness

SHELF LIFE

2 years

GUARANTEE

Silpro Corporation guarantees that their products are made of the finest raw materials under exacting care to produce products of the highest quality and will perform as stated when used in accordance with the manufacturer's printed instructions.

Improper mixing, incorrect application or other factors beyond the control of the manufacturer may produce unsatisfactory results and cannot be held to be the manufacturer's responsibility. Silpro accepts no responsibility beyond the purchase price of the Silpro product used.



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