
GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

1. DESCRIPTION

GOODCRETE CS is the advanced economical, hardener and densifier for concrete surfaces and a much more effective alternative to conventional sodium or potassium silicate hardeners. This lithium silicate treatment deeply penetrates and reacts with the concrete to produce insoluble calcium silicate hydrate within the concrete pores. Surfaces treated with GOODCRETE CS will resist damage from water, surface abrasion, eliminate dusting and simplifies maintenance. GOODCRETE CS should be used where the specification calls for just a hardened floor with or without burnishing and no grinding or polishing is required. Typically this product would be used on new slabs either at the time of placement or after a wet cure, chemical cure or after 28 days of curing or construction. GOODCRETE CS can also be use on a previously densified floor where sodium or potassium was used at one time and the surface is starting to dust or deteriorate.

2. BENEFITS

Excellent Penetration

GOODCRETE CS contains a highly reactive lithium catalyst, which achieves a more efficient penetration into the floor surface and triggers a much faster and more complete reaction with the concrete than traditional sodium silicate.

Hardening

The GOODCRETE CS solidifies the component parts of the concrete into one solid mass, increasing the density, toughness, hardness and substantially increasing the abrasion resistance and durability of the concrete surface. Smooth steel troweled surfaces develop a marble-like finish and sheen. The GOODCRETE CS treated concrete has been

compressively tested 38% harder after 30 days than

fully cured untreated concrete. And will not peel or flake.

Greater Abrasion Resistance

Concrete floors treated with GOODCRETE CS will significantly improve abrasion, in comparison to conventional sodium or potassium hardeners.

Eliminates Dusting

In ordinary concrete, tiny particles of dust are pushed to the surface through an upward force called hydrostatic pressure, resulting in efflorescence, which leads to dusting. GOODCRETE CS eliminates efflorescence and prevents dusting making concrete easy to maintain.

Reduces or Eliminates ASR

(Alkali Silicate Reaction) due to high lithium content. High concentrations of sodium or potassium salts, which will contribute to surface crazing and surface ASR, are not present in GOODCRETE CS. Lithium will not absorb water or contribute to floor sweating.

Reduces Tire Marks

The rough, uneven texture of natural concrete causes tires to abrade, adding to their wear. A concrete floor treated with GOODCRETE CS will make the entire surface smooth, preventing this abrasion and leaving minimum tire marks on the floor.

Improves Condition of Old Floors

As concrete ages, surface stress, delaminating, curled cold joints, and other problems can arise. C2liquid hardeners/densifiers combined with our customized grinding and polishing technique can remove the top surface layer of the old concrete and strengthen the floor, increasing its impact and abrasion resistance.

Little or No Production “Down Time”

GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

Cures quickly. Floor can be put into service immediately after the application process is complete. Due to the cleanliness of the process and the lack of toxic or hazardous chemicals, floors can often be serviced while the plant is in full production.

Cost Effective

- ❖ GOODCRETE CS is easy to apply, up to 100m² /man per day, this efficiently save the expensive labor cost.
- ❖ After one time application, GOODCRETE CS can give permanent, all-sided improvement and protection of the floor's performance, appearance and light reflectance, whatever new or old. Thus, greatly deduce the costs of maintenance and repair.

Environment Friendly

GOODCRETE CS is a water-based solution, it is odorless, colorless, non-toxic, non flammable, non-mutagenic & carcinogenic, complies with all known national, state and district AIM VOC regulations(safe in food preparation areas), fast drying, easy to apply.

3. ADVANTAGES

- ❖ Compatible with all lithium hardeners, densifiers, sealers and cleaners.
- ❖ Helps Concrete Curing. For best results, use GOODCRETE CS first for hardening and densification followed with a water-based, dissipating curing membrane. GOODCRETE CS should not be substituted as a curing agent.
- ❖ Easy to Use. Reduces application time and costs of burnishing and diamond polishing operations. One step application. No white salty spots on concrete, No scrubbing and flushing required

after application. No caustic wastewater.

- ❖ Ordinary cleaning can easily remove blemishes and tire marks.
- ❖ Lithium does not absorb water or contribute to floor sweating.
- ❖ An extremely hard marble-like shield and permanent impregnated surface can be achieved for the life of the concrete with one single application.
- ❖ May be applied to broom finished, steel troweled, power troweled or burnished concrete finishes before final cure.
- ❖ Much safer and easier to apply than conventional sodium or potassium silicate hardeners.
- ❖ Produces a fast surface gloss, which improves with traffic and maintenance.
- ❖ Slip resistance is not diminished with high gloss and hardness.

4. COMPLIANCE

Complies with all known national, state and district quality regulations,

Technical Data

Form	Clear, water-like liquid.
Specific Gravity	≥1.1
Active Content	≥20%
Total Solid	15%
pH	10±1
Toxicity	NO
Flash Point	Non Flammable
Freeze Point	28°F (-2°C)
VOC Content	NO
Shelf Life	5 years in sealed container

5. LIMITATIONS

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All information provided is accurate to the best of our knowledge and is to be used strictly as a guide.

Handling conditions, installation and use are not in our control therefore we cannot guarantee the results.

- ❖ Will not repair damaged surfaces and cracks >0.3mm..
- ❖ Not recommended for use on epoxy, mortar, resin-based terrazzo mixes and painted or asphaltic and non cementitious floors.

6. PREPARATION

Please read: SAFETY INFORMATION on the label and SURFACE PREPARATION before use and application.

SOLUTIONS

Remove all curing compounds and other surface contaminants. Using appropriate surface preparation cleaner.

Surface

Application of GOODCRETE CS may begin as soon as prepared surfaces are dry and free of ponded water. Do not apply to surfaces, which are frozen, dirty or have standing water. Acid-stained concrete must be thoroughly neutralized and rinsed prior to application of GOODCRETE CS.

Protect people, vehicles, property, plants and all nearby surfaces not to be treated from contact with the product including contact resulting from wind drift or over spray. Use polyethylene or other proven protective material to mask off all surrounding areas. Surfaces must be clean, dry and absorbent. Confirm surface absorbency with a light water spray. Surfaces designated for treatment should wet uniformly. If the surface does not wet uniformly, use the appropriate surface preparation cleaner or

mechanical process to remove remaining surface contaminants.

Always prepare a test sample to ensure that the

desired results are achieved on the specific substrate.

Equipment

Use a low-pressure sprayer and soft-bristled push broom, squeegee or microfiber pad.

Air and Surface Temperature

Air and surface temperature should be 4° C to 38° C (40° F to 100° F).

Specifier Note: The information provided below is intended to guide the Architect in developing specifications for products manufactured under contract for GOODCRETE Co., and should not be viewed as a complete source of information about the product(s). The Architect should also refer to the MSDS document for additional recommendations and for safety information.

Test Area

- ❖ Test a minimum 1.5m x 1.5m (5ft. x 5ft.) area on the floor.
- ❖ Use GOODCRETE Co. application instructions.
- ❖ Let the test panel dry 3 to 7 days before inspection.
- ❖ Keep test panels available for comparison throughout the project.

7. STORAGE AND HANDLING

Published shelf life assumes upright storage of factory-sealed container in a cool dry place.

Do not alter or mix with other chemicals. Thaw and Mix well before using and always seal container after dispensing.

Dispose of unused product and container in accordance with local regulations. Do not reuse

GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

container or remove labels.

Keep this and other chemicals out of the reach of children.

Packing

25KG/Pail, 250KG/Barrel, or,
5 US Gallon/Pail, 55 US Gallon/Barrel

8.APPLICATION NSTRUCTIONS

ALWAYS TEST each surface for suitability and desired results before application. For best results follow “Application Instructions”. Let surface dry thoroughly before inspection and final approval.

Dilution

Do not dilute, apply as packaged when applying to cured concrete or cured and ground/honed concrete. Apply mist-like coat when using on highly polished concrete.

Coverage Rate

150-200square feet/US gal, or 3-5square meter/L

Please Note: Coverage rates are offered for estimating purposes only. Variations in concrete quality, porosity, job site conditions, temperature and relative humidity will affect coverage rates and drying times.

Typical Coverage Rates

Calculate Target Coverage Rate by testing a small section of the prepared surface using instructions found below.

Calculating Specific Target Coverage Rate

- ❖ Prepare the test section in accordance with “Surface Preparation” . Surfaces must be clean,

dry and absorbent. Confirm surface absorbency with a light water spray – surfaces designated for treatment should wet uniformly.

- ❖ Add 3.5L of GOODCRETE CS to a clean, pump-up sprayer fitted with an adjustable spray tip. Lightly apply according to “Application Instructions” steps #1-7 for the appropriate floor type. Repeat as necessary to determine correct rate of application.
- ❖ Measure the test area to establish the Target Coverage Rate per liter.

Drying Time

30 min. to 1 hour depending on weather conditions and concrete porosity

Freshly Placed, Uncured Steel Troweled Concrete

- 1) Saw cut control joints after final surface preparation.
- 2) Clean concrete of saw debris or any dirt or residue.
- 3) Using a low-pressure sprayer fitted with an adjustable spray tip, apply a single coat of GOODCRETE CS at a rate that covers the surface but does not produce puddles. Treated surfaces should stay wet for 5-10 minutes following initial application. Uniformly spread the product in a thin layer using a microfiber pad. The microfiber pad should be pre-moistened with GOODCRETE CS prior to use. Treat porous areas that dry in less than 5-10 minutes with additional GOODCRETE CS.
- 4) Using a squeegee, water rinse or automatic floor scrubber, collect and remove after 15 minutes all residues, which do not penetrate. Failure to remove excess material may result in extended dry times and a dry powder residue resulting from liberal application of GOODCRETE CS.

GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

- 5) Let treated surfaces dry thoroughly, typically 30 min. to 1 hour. Remove any dried powder residue from the surface using a stiff broom,
 - 6) power sweeper or floor scrubbing machine.
 - 7) Immediately apply the specified curing compound or initiate the specified curing procedure.
 - 8) Once dry, burnish to a high gloss finish using high-speed burnishing equipment fitted with C2Heat™ burnishing pads. Additional coats may be applied and burnished depending upon concrete porosity and desired finish.
- Ground/Honed Concrete.
 - 2) To achieve desired finish, use progressively finer diamond discs and continue grinding from 800 to 3000 grit.
 - 3) Remove all dust and debris.
 - 4) For immediate and enhanced shine, burnish or
 - 5) buff the dry concrete surface in both directions using a burnisher fitted with C2Heat™ burnishing pads or an orbital floor machine equipped with a black, red or white pad. This is a dry buffing operation.

Cured, Steel Troweled Concrete

- 1) Remove all dirt, debris, or curing compounds. Allow clean surface to dry.
- 2) Confirm surface absorbency with a light water spray. Make sure that prepared surface is uniformly wet and in hot, dry weather, lightly pre-wet the concrete with fresh water. Allow any standing water to evaporate.
- 3) Follow steps 2 - 7 as described in "Freshly Placed, Uncured Steel-Troweled Concrete" for completion.

Cured and Ground/Honed Concrete

- 1) Grind or sand and level the concrete surface with an orbital floor machine, floor sander or diamond grinding machine equipped with a 50 to 200 grit sanding screen, diamond discs or diamond abrasive pad depending upon desired exposure and size of the aggregate. Vacuum dry
- 2) grinding equipment is preferred. Wash off or vacuum all sanding dust and debris and allow floor to dry.
- 3) Follow steps 2 - 7 as described in "Freshly Placed & Uncured Concrete" for completion.

Cured and Polished Concrete

- 1) Follow steps listed above for Cured and

Please Note: GOODCRETE CS is compatible with wet or dry grinding and polishing operations. The above procedures for polished and highly polished concrete may be customized by an experienced contractor to complement his grinding or polishing operation.

9. CLEAN UP

Clean tools and equipment with fresh water. Immediately wash with water over sprayed glass, aluminum, or other surfaces. **FINAL RESULTS** The concrete surface is ready to use when dry. Smooth and hardened concrete surfaces should demonstrate reduced water absorption, a satin sheen, and slight color enhancement upon drying. Maximum water resistance and hardness will develop over 7 days. Surface sheen will increase with time and maintenance.

10. MAINTENANCE

Do not use acidic cleaners to maintain treated floors. Though GOODCRETE CS will improve the stain resistance of concrete some acid concentrates and acidic foods may etch and leave a residual stain if left on the surface. Clean up all spills quickly to minimize

GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

any possible damage. All sealers, both penetrating and coatings will only slow down the staining process.

Spills must be cleaned up in a timely manner.

Daily removal of surface dust and debris with a microfiber pad or dry dust mop will help maintain the desired appearance.

Regular maintenance cleaning will improve surface shine. To refresh gloss surface, dry buff periodically with high-speed burnisher.

Please Note: If additional protective treatments or surface coatings are desired, please consult GOODCRETE Co. or its local representative for Recommendations.

RECOMMENDATIONS

The GOODCRETE CS recommendations for surface preparation and product application must be followed. Consult GOODCRETE Co. or its local representatives regarding applications in extreme weather conditions

All loose construction debris and foreign materials must be removed from the area to be treated using a dry broom. All curing compounds, coatings, and paint, wax, embedded soiling, rust, grease and oil must be removed to allow penetration.

Always establish grinding starting point for every project.

Confirm surface absorbency with a light water spray. If surfaces selected for treatment do not wet uniformly, additional surface preparation may be needed.

Thoroughly neutralize and rinse acid stained concrete before applying GOODCRETE CS.

Wastewater generated by wet grinding or polishing procedures should be collected and disposed of properly.

For subsequent coating applications, perform proper surface preparation and consult the coating

manufacturer for more instructions.

The instructions for diamond grinding and polishing are guidelines and do not supersede those of the concrete polishing contractor.

11. FIRST AID

In case of any chemical emergency related to our products; spill, leak, fire or accident, please take emergency measures ASAP according to following aid information.

Ingestion:

Drink large quantities of water or milk. DO NOT induce vomiting. Seek medical attention immediately.

Eye Contact:

Remove contact lenses. Immediately flush eyes for 15 minutes in clear running water while holding eyelids open. Seek medical attention immediately.

Skin Contact:

Wash contacted area with soap and water. DO NOT attempt to neutralize with chemical agents. If irritation persists, seek medical attention.

Inhalation:

Remove affected person to fresh air. Wash mouth and

GOODCRETE Lithium Concrete Sealer (GOODCRETE CS)

nasal passages with water repeatedly. If breathing difficulties persist, seek medical attention.

12. CUSTOMER SERVICE

For additional product and application information, please visit our website: www.goodcrete.com, or contact at linda@goodcrete.com