Consolideck® LS/CS®

economical lithium-silicate sealer, hardener & densifier for concrete

OVERVIEW

Consolideck® LS/CS® provides a safe, economical alternative to conventional sodium or potassium silicate surface hardeners. This penetrating lithium silicate treatment reacts with concrete to produce insoluble calcium silicate hydrate within the concrete pores.

Unlike conventional hardeners which deposit high concentrations of sodium or potassium salts, Consolideck® LS/CS® contains lithium. LS/CS® will not trigger or contribute to surface ASR (Alkali Silicate Reaction).

SPECIFICATIONS

For all PROSOCO product specifications visit www.prosoco.com and click on “SpecBuilder” or “Solution Finder.”

ADVANTAGES

• Easy, one step application. No scrubbing. No flushing. No caustic wastewater.
• Penetrates and reacts quickly to produce better initial hardness.
• Provides excellent abrasion resistance
• Tested and conforms to California Collaborative for High Performance School Indoor Air Quality standards. Use can contribute to LEED® for Schools points (EQ Credit 4).

• Produces a fast surface gloss which improves with traffic and maintenance.
• Improves performance, appearance and light reflectance of new or old concrete.
• Reduces application time and cost of burnishing and diamond polishing operations.
• Will not contribute to surface crazing. High lithium content combats surface ASR.
• Lithium will not absorb water or contribute to floor sweating.
• Gloss and hardness do not reduce slip resistance.
• Breathable and UV stable. Will not yellow, discolor, peel or flake.
• Cures quickly. Most floors can be opened to traffic within one hour of treatment.
• Treated surfaces are easy to maintain and require no waxing.

REGULATORY COMPLIANCE

VOC Compliance

Consolideck® LS/CS® is compliant with the following national, state and district AIM VOC regulations:

X US Environmental Protection Agency
X California Air Resources Board SCM Districts
X South Coast Air Quality Management District
X Maricopa County, AZ
X Northeast Ozone Transport Commission

TYPICAL TECHNICAL DATA

<table>
<thead>
<tr>
<th>FORM</th>
<th>clear, water-like liquid</th>
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<tr>
<td>SPECIFIC GRAVITY</td>
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<tr>
<td>pH</td>
<td>11.0</td>
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<tr>
<td>WT/GAL</td>
<td>8.6 lbs</td>
</tr>
<tr>
<td>ACTIVE CONTENT</td>
<td>6%</td>
</tr>
<tr>
<td>TOTAL SOLIDS</td>
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<tr>
<td>VOC CONTENT</td>
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<tr>
<td>FLASH POINT</td>
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</tr>
<tr>
<td>FREEZE POINT</td>
<td>32°F (0°C)</td>
</tr>
<tr>
<td>SHELF LIFE</td>
<td>2 years in tightly-sealed, unopened container</td>
</tr>
</tbody>
</table>

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PREPARATION

Protect people, vehicles, property, plants and all surfaces not designated to receive LS/CS® from the product, splash and wind drift. Use polyethylene or other proven protective material.

Do not apply to surfaces which are frozen, dirty or have standing water. 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 Consolideck® surface prep cleaner or mechanical process to remove remaining surface contaminants.

New Concrete

Consolideck® LS/CS® may be applied to freshly placed concrete after final finishing and installation of the control joints. Remove soft cut saw debris before applying Consolideck® LS/CS®.

Existing Concrete

Though Consolideck® LS/CS® may be applied to existing, cured concrete of any age, Consolideck® LS® may be a better choice. Contact your PROSOCO representative or PROSOCO Customer Care (1-800-255-4255) for recommendations.

Surfaces must be clean and structurally sound. Remove all foreign materials including bond breakers, curing agents, surface grease and oil, and construction debris using the appropriate Consolideck® surface prep cleaner listed below:

Consolideck® SafStrip
• cure & seals;
• paint and high strength coatings

Consolideck® SafEtch® *
• concrete laitance
• construction soiling
*Not for use on concrete previously treated with Consolideck® LS®, LS/CS® or LSGuard®.

Consolideck® Wax & Cure Remover
• waxes, sealers & coatings
• low-solids cure & seals

Consolideck® Cure & Seal Remover
• high-solids cure & seals

Consolideck® Concrete Floor Restorer
• general soiling and light wax coatings
• rust and other metallic staining

Consolideck® Cleaner/Degreaser
• general soiling
• grease and oil

Consolideck® Oil & Grease Stain Remover
• deep-seated oil & grease staining

Follow the appropriate cleaner with thorough water rinsing. If a d-limonene based cleaner/stripper is used, clean treated surfaces with Consolideck® Cleaner/Degreaser and rinse thoroughly.

Acid-stained concrete must be thoroughly neutralized and rinsed prior to application.

Application may begin as soon as prepared surfaces are dry and free of ponded water.

Surface & Air Temperatures

Temperatures for application should be 40–100°F (4–38°C).

Equipment

Apply with low pressure sprayer, mop or a soft-bristled push broom.

Storage & Handling

Store in a cool, dry place. Always seal container after dispensing. Do not alter or mix with other chemicals. Follow the appropriate cleaner with thorough water rinsing. If a d-limonene based cleaner/stripper is used, clean treated surfaces with Consolideck® Cleaner/Degreaser and rinse thoroughly.

Do not apply to surfaces which are frozen, dirty or have standing water. 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 Consolideck® surface prep cleaner or mechanical process to remove remaining surface contaminants.

Estimated Coverage Rates

The following coverage rates are offered for estimating only. See below for instructions on calculating project-specific target coverage rates.

Freshly Placed, Uncured, Steel Troweled Concrete
• 500–800 sq.ft. (46–74 sq.m.) per US gal

Cured, Steel Troweled Concrete
• 400–700 sq.ft. (37–65 sq.m.) per US gal

Cured, Ground/Honed Concrete
• 400–600 sq.ft. (37–65 sq.m.) per US gal

Calculating Project-Specific Target Coverage Rate

1. Prepare the test section in accordance with “Preparation” information above. Surfaces must be clean, dry and absorbent. Confirm surface absorbency with a light water spray — surfaces designated for treatment should wet uniformly.

2. Add 1-gallon of LS/CS® to a clean, pump-up sprayer fitted with a 0.5 gpm spray tip. Lightly apply according to Application Instructions steps #1–4 for the appropriate floor type. Repeat as necessary to determine correct rate of application.

3. Measure the test area to establish the Target Coverage Rate per gallon.
Application Instructions

Freshly Placed, Uncured Steel Troweled Concrete

1. After final finishing, soft cut control joints.
2. Clean concrete of any dirt, residue or soft cut saw debris.
3. Using a low pressure sprayer fitted with a 0.5 gpm spray tip, apply a single coat of LS/CS®. Apply sufficient material to wet the surface without producing puddles. Use a clean, soft-bristle push broom or microfiber pad to spread product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary. If surfaces dry immediately, apply more product. Surface should remain wet for 5–10 minutes. Adjust rate of application to eliminate puddles.

NOTE: Allowing excess material to puddle on the floor will extend dry times and create white residues which must be removed immediately. Call the Consolideck® Hotline at 866-363-4567 for removal instructions.

4. Allow treated surfaces to dry.
5. Immediately apply the specified curing compound or initiate the specified curing procedure.
6. When the curing process is complete, use an automatic floor scrubber equipped with cleaning pads or brushes appropriate for removal of accumulated construction soiling and surface residues. Avoid pads or brushes which may damage the finished floor. This procedure will further enhance the surface sheen produced by Consolideck® LS/CS®.

For additional shine and protection, apply Consolideck® LS/Guard® according to label instructions.

Application Instructions

Cured, Ground/Honed Concrete

1. Sand, level or grind the concrete surface with a floor sander, orbital floor machine or diamond grinding machine as needed to achieve the desired exposure.
2. Remove all sanding dust and debris using a floor scrubbing machine and fresh water. Remove any remaining surface contaminants using the appropriate Consolideck® surface prep cleaner. Allow wet surfaces to dry.
3. Apply a single coat of LS/CS® using a low pressure sprayer fitted with a 0.5 gpm spray tip. Apply sufficient material to wet the surface without producing puddles. Use a clean, soft-bristle push broom or microfiber pad to spread product evenly and ensure uniform wetting.

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Application Instructions

Cured, Steel Troweled Concrete

1. Remove all dirt, debris, or curing compounds using the appropriate Consolideck® surface preparation cleaner listed above. Allow cleaning waters used in surface preparation to dry.
2. The prepared surface must wet uniformly. Confirm surface absorbency with a light water spray. In hot, dry weather, pre-wet the concrete with fresh water. Allow any standing water to evaporate.
3. Apply a single coat of LS/CS® using a low pressure sprayer fitted with a 0.5 gpm spray tip. Apply sufficient material to wet the surface without producing puddles. Use a clean, soft-bristle push broom or microfiber pad to spread product evenly and ensure uniform wetting.

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**Application Instructions**

### Cured and Polished Concrete

Follow steps 1–5 listed above for Honed Concrete. Use progressively finer abrasives, continue diamond polishing in consecutive steps to achieve the desired finish. Remove all polishing dust and debris. **For additional shine and protection**, apply Consolideck® LS/CS® according to label instructions.

### Cleanup

Before product dries, clean tools and equipment with fresh water. Immediately wash off any spray or contamination from glass, aluminum, polished or other surfaces with fresh water.

**Final Results**

The floor is ready to use when dry. Smooth and hardened concrete surfaces will exhibit reduced water absorption and increased surface sheen upon drying. Maximum water resistance will develop over 7 days. Surface sheen and hardness will increase with time and maintenance.

**Maintenance**

- **Remove surface dust and debris daily using a microfiber pad or dry dust mop.**
- **Dry buff with a high-speed burnisher to refresh gloss.**

Regular maintenance cleaning will improve surface shine. Maintain the floor with Consolideck® LS/Klean Super Concentrate.

- **Do not use acidic cleaners.** Though Consolideck® LS/CS® will improve the resistance of concrete surfaces to staining, some acid concentrates and acidic foods may etch the floor and leave a residual stain. Clean up such spills quickly to minimize any potential for damage.

**SAFETY INFORMATION**

Consolideck® LS/CS® is a water carried product. Use appropriate safety and job site controls during application and handling. Read the full label for precautionary instructions before use.

**First Aid**

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

**WARRANTY**

The information and recommendations made are based on our own research and the research of others, and are believed to be accurate. However, no guarantee of their accuracy is made because we cannot cover every possible application of our products, nor anticipate every variation encountered in masonry surfaces, job conditions and methods used. The purchasers shall make their own tests to determine the suitability of such products for a particular purpose.

PROSOCO, Inc. warrants this product to be free from defects. Where permitted by law, PROSOCO makes no other warranties with respect to this product, express or implied, including without limitation the implied warranties of merchantability or fitness for particular purpose. The purchaser shall be responsible to make his own tests to determine the suitability of this product for his particular purpose. PROSOCO's liability shall be limited in all events to supplying sufficient product to re-treat the specific areas to which defective product has been applied. Acceptance and use of this product absolves PROSOCO from any other liability, from whatever source, including liability for incidental, consequential or resultant damages whether due to breach of warranty, negligence or strict liability. This warranty may not be modified or extended by representatives of PROSOCO, its distributors or dealers.

**CUSTOMER CARE**

Factory personnel are available for product, environment and job-safety assistance with no obligation. Call 800-255-4255 and ask for Customer Care - technical support.

Factory-trained representatives are established in principal cities throughout the continental United States. Call Customer Care at 800-255-4255, or visit our web site at www.prosoco.com, for the name of the Consolideck® representative in your area.