

Consolideck® LS/CS® Concrete Sealer & Densifier Specification

Specifier Note: The information provided below is intended to guide the Architect in developing specifications for products manufactured by PROSOCO, Inc. and should not be viewed as a complete source of information about the product(s). The Architect should always refer to the Product Data Sheet and MSDS for additional recommendations and for safety information.

Specifier Note: Paragraph below is for PART 1 GENERAL, Quality Assurance.

Test Area

Test a representative area of no less than 10 ft. by 10 ft. (and no more than 10% of the total floor area) to confirm surface preparation procedures, coverage rate, reaction time, finished appearance, etc. Use the manufacturers' application instructions. Let test area dry thoroughly before inspection. Get owner's approval before proceeding. Keep test area available for comparison throughout the project.

Specifier Note: Paragraphs below are for PART 2 PRODUCTS, Manufacturers and Products.

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Product Description

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

Unlike conventional hardeners which deposit high concentrations of sodium or potassium salts, Consolideck® LS/CS® contains lithium – the only chemical element known to combat ASR (alkali silicate reaction).

Technical Data

FORM: Clear, water-like liquid

SPECIFIC GRAVITY: 1.05

pH: 11.0

WT/GAL: 8.6

ACTIVE CONTENT: 6%

TOTAL SOLIDS: 6%

VOC CONTENT: 0 g/L. Complies with all known national, state and district AIM VOC regulations.

FLASH POINT: Not flammable

FREEZE POINT: 32°F (0°C)

SHELF LIFE: 2 years in unopened, factory-sealed container.

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Specifier Note: Paragraphs below are for PART 3 EXECUTION, Installation.

Preparation

Surfaces to be treated must be clean, dry and absorbent. Confirm surface absorbency with a light water spray. If surface does not wet uniformly, use the appropriate Consolideck® surface preparation cleaner or mechanical process to remove remaining surface contaminants. Read “Preparation” and “Safety Information” sections in the Manufacturer’s Product Data Sheet for Consolideck® LS/CS®. Refer to the Product Data Sheet for additional information about application of Consolideck® LS/CS®. Do not dilute or alter.

Application

Calculating Target Coverage Rate

Variations in concrete quality, porosity, job site conditions, temperature and relative humidity will affect coverage rates and drying times. Test a representative section of the prepared surface to calculate the Target Coverage Rate.

1. Surfaces to be treated must be clean, dry and absorbent. Confirm surface absorbency with a light water spray. If surface does not wet uniformly, use the appropriate Consolideck® surface preparation cleaner or mechanical process to remove remaining surface contaminants.
2. Pour one gallon of product into a clean pump up sprayer fitted with a 0.5 GPM spray tip. Lightly apply sufficient product to wet the surface without producing puddles.
3. Use a clean, soft bristle push broom or microfiber pad to spread the product and ensure uniform wetting. Scrubbing is not necessary.
4. If surfaces dry immediately, increase your rate of application. Surface should remain wet for 5–10 minutes. Adjust rate of application to eliminate puddles.
5. Repeat steps 2 through 4 as needed to determine the correct rate of application. 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. Clean concrete of any dirt, residue or soft cut saw debris. Allow surface to dry.
2. Using a low pressure sprayer fitted with a 0.5 GPM tip, apply a single coat of Consolideck® LS/CS®. Lightly apply sufficient product to wet the surface without producing puddles.
3. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.
4. If surfaces dry immediately, increase the rate of application. 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.
5. Allow treated surfaces to dry.
6. Immediately apply the specified curing compound or initiate the specified curing procedure.

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7. 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.

Cleanup: Before product dries, clean tools and equipment with fresh water. Immediately wash off overspray from glass, aluminum, polished or other surfaces with fresh water.

Application Instructions: Cured, Steel Troweled Concrete

1. Remove all dirt, debris, or curing compounds using the appropriate Consolideck® surface prep cleaner. 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 using a low pressure sprayer fitted with a 0.5 GPM spray tip. Apply sufficient product to wet the surface without producing puddles. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.
4. If surfaces dry immediately, increase the rate of application. 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.
5. Allow treated surfaces to dry.
6. Remove any dried powder residue using a stiff broom, power sweeper or auto-scrubbing machine.
7. For immediate, enhanced shine, buff or burnish the dry concrete surface in both directions using an orbital floor machine or burnisher equipped with an appropriate polishing pad. This is a dry buffing operation.

Cleanup: Before product dries, clean tools and equipment with fresh water. Immediately wash off overspray from glass, aluminum, polished or other surfaces with fresh water.

Application Instructions: Cured, Ground/Honed Concrete

1. Sand, level or grind the concrete surface with a floor sander, orbital floor machine or diamond grinding equipment as needed to achieve the desired exposure.
2. Remove all dust and debris using a floor-scrubbing machine and fresh water. If surface has remaining contaminants use the appropriate Consolideck® surface prep cleaner to remove any remaining surface contaminants which may compromise uniform wetting, penetration and performance of Consolideck® LS/CS®. Allow wet surfaces to dry.
3. Using a low pressure sprayer fitted with a 0.5 GPM spray tip, lightly apply sufficient product to wet the surface without producing puddles. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.

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4. If surfaces dry immediately, increase the rate of application. Surface should remain wet for 5–10 minutes. Adjust rate of application to minimize puddles.
NOTE: Allowing excess material to puddle on the floor will extend dry times and create white residues which must be removed immediately.
5. Allow treated surfaces to dry.
6. Remove any dried powder residue using a stiff broom, power sweeper or floor scrubbing machine.
7. If additional surface sheen is desired, buff or burnish the concrete surface in both directions with an orbital floor machine or burnisher equipped with an appropriate polishing pad. This is a dry buffing operation.

Cleanup: Before product dries, clean tools and equipment with fresh water. Immediately wash off overspray from glass, aluminum, polished or other surfaces with fresh water.

Application Instructions: Cured and Polished Concrete

1. Sand, level or grind the concrete surface with a floor sander, orbital floor machine or diamond grinding equipment as needed to achieve the desired exposure.
2. Remove all dust and debris using a floor-scrubbing machine and fresh water. If surface has remaining contaminants use the appropriate Consolideck® surface prep cleaner to remove any remaining surface contaminants which may compromise uniform wetting, penetration and performance of Consolideck® LS/CS®. Allow wet surfaces to dry.
3. Using a low pressure sprayer fitted with a 0.5 GPM spray tip, lightly apply sufficient product to wet the surface without producing puddles. Use a clean, soft bristle push broom or microfiber pad to spread the product evenly and ensure uniform wetting. Avoid spreading once drying begins. Scrubbing is not necessary.
4. If surfaces dry immediately, increase the rate of application. Surface should remain wet for 5–10 minutes. Adjust rate of application to minimize puddles.
NOTE: Allowing excess material to puddle on the floor will extend dry times and create white residues which must be removed immediately.
5. Allow treated surfaces to dry.
6. Remove any dried powder residue using a stiff broom, power sweeper or floor scrubbing machine.
7. Using progressively finer abrasive diamonds, continue polishing in consecutive levels to achieve the desired finish. Remove all polishing dust and debris using an auto-scrubbing machine.

NOTE: For additional shine and protection, apply Consolideck® LSGuard® according to label instructions.

Cleanup: Before product dries, clean tools and equipment with fresh water. Immediately wash off overspray from glass, aluminum, polished or other surfaces with fresh water.