

CSI Surface Etch

Concrete Exposed Aggregate Surface Retarder

Technical Data Sheet



Helix Color Systems is a premier line of specialty decorative concrete admixtures manufactured by ChemSystems Inc. Helix Color Systems is manufactured for the discriminating installer or designer who values service and quality. Specializing in custom colors, specialty products, and superior service, Helix Color Systems offers an innovative alternative in the decorative concrete industry.

Description

CSI Surface Etch is a unique product applied to the surface of freshly placed concrete that slows the hardening of the cement by temporarily deactivating the hydration process. It is not a simple sugar-based product but rather a complex combination of materials mixed to a particular pH that counteracts the high pH of Portland cement. This exacting pH makes for consistent depths of etch that are unachievable with traditional exposing products. CSI Surface Etch develops a polymer film that acts as a water barrier and curing compound which protects the concrete from incidental rain while inhibiting the evaporation of the mix water. The top of the cast concrete has a resulting sand finish unlike any hand-washed or sandblasted concrete finish on the marketplace.

CSI Surface Etch is available in six different levels of etch or aggregate exposure:

- Light Acid Etch: Color coded: 01 White
- Regular Acid Etch: Color coded: 03 Violet
- Sandblast: Color coded: 05 Blue
- Light Exposed Wash: Color coded: 15 Yellow
- Medium Exposed Wash: Color coded: 50 Green
- Deep Exposed Wash: Color coded: 125 Pink

Product Benefits

- Superior consistency
- Environmentally friendly
- User friendly
- Zero VOCs
- Built in rain barrier
- Contains no solvents
- Color coded for ease of use

Application

Concrete should be finished to achieve a smooth and uniform surface. Steel trowel finish is recommended.

1. Mix CSI Surface Etch thoroughly before use. Assure there are no solids or clumps prior to use. If solid clumps are present, break them up with a mechanical mixer.
2. Apply CSI Surface Etch with a good quality pump-style sprayer. Shake occasionally during application to assure proper product consistency. Apply CSI Surface Etch once the concrete can support light traffic (in socks or soft shoes) but can still be easily marked by dragging your fingers across the surface.
3. Apply CSI Surface Etch in a light uniform coat at a rate of 500-600 square feet per gallon using a high quality pump up sprayer, HVLP sprayer, or airless sprayer. A light uniform application of CSI Surface Etch is superior to a heavy application that is uneven or blotchy. Over application can lead to a thick film that is hard to remove.
4. Once dry, CSI Surface Etch provides excellent protection against intermittent rain and can also be used on stamped concrete, cast-in-place, curb and gutter, and any precast applications.
5. Let the concrete cure to a hardened state before removing the Surface Etch. The cure time will vary depending on concrete mix and environmental temperatures.
6. After 12 to 24 hours, depending on temperature and humidity, clean CSI Surface Etch from the concrete surface. Use a walk-behind low RPM auto scrubber or low power washer (less than 1500 psi) to expose the concrete surface. In warm conditions, it may be necessary to remove CSI Surface Etch the same day.

7. Repeat as necessary until the surface is uniform and water runs clear. Rinse with clean water and let the surface thoroughly dry.

8. CSI recommends sealing all exposed aggregate concrete surfaces. Consult a CSI sales representative for sealer recommendations.

Surface Protection and Maintenance

Sweep floor regularly. Wet mop or scrub floor as needed using warm water.

Limitations

- Final appearance of CSI Surface Etch treated concrete is highly dependant upon the placing, finishing and application techniques of the installer.
- Apply only when temperature is above 40 °F. Consult ChemSystems, Inc. prior to application in temperatures greater than 95 °F
- Do not allow to freeze.

Coverage Rates and Drying Times

Coverage rates may vary depending on the texture, porosity, age and condition of the concrete, the application method, and other local conditions.

- CSI Surface Etch is applied at a rate of 500-600 feet per gallon per coat.

Drying times will vary depending on surface permeability, temperature, humidity and local conditions.

- Dry time is approximately 10 to 30 minutes depending on temperature and humidity.

Shelf Life and Storage

CSI Surface Etch can be stored for approximately one year if stored in its original container and protected from temperatures less than 32 °F or more than 90 °F for extended periods of time. Ideal storage temperature is 72 °F.

Package Sizes

CSI Surface Etch is available in 5-gallon units.

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Please refer to the corresponding MSDS for hazard-related information.

Product Handling

For complete instructions on handling and use, consult the corresponding Material Safety Data Sheet before using product.

Warranty

CSI Surface Etch, a proprietary product, is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller's and manufacturer's obligation under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product. If you have any questions, please contact ChemSystems, Inc.



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*For complete information on all CSI products—including product information catalogs, product brochures, color charts, technical specifications, sales aids and more—contact ChemSystems, Inc.

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