

CSI Solvent Sealers

(CSI Solvent Seal 18 Semi-Gloss,
CSI Solvent Seal 23 Gloss, and CSI Solvent Seal 27 High Gloss)

Technical Data Sheet 15.0509DS



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 Solvent Sealers are high quality, breathable, solvent-based 100% acrylic sealers designed to permanently seal concrete and masonry surfaces, providing a range of finishes that will protect surfaces from water, dust, stains and dirt.

- Solvent Seal 18 – Semi -Gloss level
- Solvent Seal 23 – Medium Gloss level
- Solvent Seal 27 – High Gloss level

Product Benefits

- CSI Solvent Sealers are spray or roll-down pure acrylic sealers.
- When applied according to directions, these CSI Solvent Sealers provide a breathable, non-yellowing protective finish and enhance exterior concrete, terrazzo, brick and masonry surfaces. *Please see 'Limitations and Precautions' section of this bulletin for important information regarding interior use, vapors and flammability.*
- CSI Solvent Sealers provide Semi to high gloss finishes, depending on substrate, product used and number of coats applied. CSI recommends a minimum of two coats for best results. Always test in an inconspicuous area for desired gloss and compatibility.
- CSI Solvent Sealers are an excellent choice for sealing and enhancing the following surfaces:
 - Colored, imprinted concrete
 - Colored concrete that has been unsealed or stripped
 - Concrete that has been treated with water-based stain, acid stain, or dye that has been left unsealed or stripped
 - Color hardened concrete that has been left unsealed or stripped
 - Uncolored concrete that has been left unsealed or stripped
 - Exterior concrete surfaces that will weather naturally
 - Exposed aggregate
- These sealers protect surfaces against dusting, staining and dirt with non-yellowing finishes. The sealers enrich the tone of concrete colored with CSI Integral Color*, CSI Color Hardener* and CSI Stampable Overlay*, as well as accentuate the surface character of concrete treated with CSI ChromaStain* or CSI Concrete Dye*.

Pre-Application

1. When using any CSI Solvent Sealer the surface must be clean and completely dry before application. If the surface is not clean or completely dry, the sealer may turn white or hazy, or the sealer may fail to form a proper film. If excessive moisture in the concrete is suspected, contact ChemSystems, Inc. for technical assistance before applying a CSI Solvent Sealer.
2. Before applying product to new or existing concrete, test the CSI Solvent Sealer in an inconspicuous area for desired results. For any questions regarding application, contact ChemSystems, Inc.

Application

Warning: Do not apply any CSI Solvent Sealer to fresh concrete. These sealers are not curing compounds. Allow at least 7 days for concrete to cure or at a very minimum, wait until the concrete has reached a uniform color. For optimum results, allow concrete to cure for 28 days or longer.

1. The surface should be completely clean and dry before application. For cleaning use a good commercial cleaner/degreaser diluted with at least 2 ounces of CSI Neutralizer/Degreaser* per gallon of water. If applying over old lacquer or sealer, test a small area to determine compatibility. Loose, flaky sealer should be removed using a high-pressure washer.

2. CSI Solvent Sealers should be applied with a high-quality pump-up or airless sprayer or a low nap solvent resistant roller.
3. **Important:** When applying a CSI Solvent Sealer, do not allow the sealer to puddle. Maintain a wet edge to avoid roller marks. Apply the sealer as uniformly as possible without leaving either spaces or puddles. Multiple thin applications will give better results than a single, heavy application.
4. Two light coats of a CSI Solvent Sealer, at the recommended coverage rate, are usually sufficient to seal and protect. However, for increased gloss, durability and extra protection, apply additional coats after initial coats are dry.

Surface Protection and Maintenance

- For areas where oil spills may occur, like parking garages and driveways, use a CSI Solvent Sealer according to application directions as stated above. CSI Solvent Sealers will resist oil stains initially upon contact.
- Note:** If oil is left on the surface for an extended period of time or if the oil is not properly cleaned up, the oil may penetrate the sealer and go into the concrete. Should oil penetrate the sealer, that area can be degreased with a good commercial cleaner/degreaser and recoated with a CSI Solvent Sealer.
- Remove any CSI Solvent Sealer using a good commercial stripper.
 - Maintain the sealed surface with regular cleaning:
 - *Day-to-Day Cleaning* – CSI Solvent Sealers, like all surface sealers, must be kept clean for maximum durability and protection. Frequent sweeping or vacuuming of loose soils will significantly increase the wear-life of CSI Solvent Sealers.
 - *Maintenance Cleaning* – Clean sealed surfaces with a neutral pH floor cleaner, rinse and let dry.
 - *Removing Ground-in Soils* – For removal of ground-in soils, use a neutral pH floor cleaner, scrub with a low-speed buffer. Rinse by pressure washing thoroughly. Let dry before allowing traffic.

Limitations and Precautions

- **These Products are Highly Flammable.**

Keep away from heat, sparks, and flame. Vapors may cause flash fire. Do not smoke. Extinguish all flames and pilot lights, and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Prevent buildup of vapors by opening all windows and doors to achieve cross-ventilation. Use only with adequate ventilation.
- **Use on interior concrete:** If used on interior concrete, ensure adequate ventilation and block all HVAC ventilation ducts which may distribute solvent odor.
 - Do not breathe vapors or spray mists. Ensure fresh air entry during application and drying.
 - Prevent buildup of vapors by opening all windows and doors to achieve cross-ventilation. Use only with adequate ventilation.
- Do not apply when concrete surfaces or ambient temperatures are below 40 °F or above 90 °F. Use with adequate ventilation and keep away from open flames.
- If solvent odor is objectionable, the use of a water-based, low odor product, such as CSI ChemSeal* may be preferred.
- CSI Solvent Sealers will protect concrete from dusting and soiling if applied properly, evenly, with adequate film thickness, and with sufficient coverage as outlined in the application directions. Insufficient number of coats when applying a CSI Solvent Sealer will result in inadequate protection for the concrete.
- Failure to remove dirt and debris from the surface or failure to properly clean the surface will result in premature wear and will impair penetration.

• Adhesive-backed tape (such as duct tape) left on a CSI Solvent Sealer over an extended period of time will create a chemical “weld” between the tape and the sealed substrate. If this happens, the sealer may be subject to delamination. Delamination can also occur when plastic or synthetic rubber mats are placed on the surface and left undisturbed over extended periods and when rubber tires on the sealed surface have been exposed to heat.

Shelf Life and Storage

All CSI Solvent Sealers have a shelf life of one year. Store product indoors, away from heat, direct sunlight and sources of ignition. Do not allow product to freeze.

Coverage Rate and Drying Times

Coverage rates may vary depending on the texture, porosity, condition of the concrete, the application method, and other local conditions. Two light coats of CSI Solvent Sealers at the recommended coverage rates are usually sufficient to seal and protect. However, if you want increased gloss, durability, and extra protection, apply additional coats after initial coats are dry.

- *Smooth Finish* – Material usage is 300-500 square feet per gallon/coat.
- *Rough or Broom Finish* – Material usage is 250-400 square feet per gallon/coat.

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

Note: *When the air temperature reaches 85 °F or higher and the surface to be sealed is in the direct sunlight, the temperature can be 10-20 degrees higher thus causing the sealer to flash off which in turn may cause blistering or bubbling of sealer. If this occurs wait for the temperature to drop and apply a light thin coat of xylene to re-dissolve the sealer.*

CSI Solvent Seal 18 Semi-Gloss, CSI Solvent Seal 23 Gloss and CSI Solvent Seal 27 High Gloss

- *Set to Touch* – Surface can be lightly touched one to two hours after each application.
- *Recoat* – Surface can be recoated two to four hours after each application.
- *Light Traffic* – Light traffic can be allowed 24 hours after final coat.
- *Vehicle Traffic* – Vehicle traffic can be allowed one to two days after final coat, depending on temperature.

Package Sizes

CSI Solvent Sealers are available in 1-, 5- and 55-gallon units.

Colors

Using CSI Tint Concentrate SB*, CSI Solvent Sealers may be tinted to match any color shown on any CSI color chart or may be tinted to match any custom color. Order enough tinted sealer to complete a specific job as tint colors may vary slightly from batch to batch.

Applicable Standards

CSI Solvent Sealers are not VOC compliant in all areas. Before use, consult local and state regulations, the U.S. EPA, or ChemSystems, Inc. to determine if this product complies with VOC regulations in your area.

- CSI Solvent Sealers are approved by the USDA for secondary food contact surfaces
- ASTM D2047 – exceeds slip-resistance requirements with CSI Polygrit
- ASTM D2801 for leveling
- ASTM D3153 for recoatability

• ASTM D523 for gloss:

CSI Solvent Seal 18 Semi-Gloss is 85

CSI Solvent Seal 23 Gloss is 90

CSI Solvent Seal 27 High Gloss is 93

Technical Data

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

CSI Solvent Seal 18 Semi-Gloss

Color Clear (*unless tinted to CSI specification colors*)

Odor Sweet

Solids Content..... 18%

Flash Point 100 °F

VOC Content 820 grams per liter

Resin Pure acrylic, non-yellowing

CSI Solvent Seal 23 Gloss

Color Clear (*unless tinted to CSI specification colors*)

Odor Sweet

Solids Content..... 23%

Flash Point 100 °F

VOC Content 770 grams per liter

Resin Pure acrylic, non-yellowing

CSI Solvent Seal 27 High Gloss

Color Clear (*unless tinted to CSI specification colors*)

Odor Sweet

Solids Content..... 27%

Flash Point 100 °F

VOC Content 730 grams per liter

Resin Pure acrylic, non-yellowing

Product Handling

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

Warranty

CSI Solvent Sealers, 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.



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

© 2009 ChemSystems, Inc.

www.helixcolorsystems.com

ChemSystems, Inc. 10101 Genard Road, Houston, TX 77041
P: 800.545.9827 • F: 713.329.9065 • www.chemsystemsinc.net