



A lifetime Certi-Shine floor. **It's concrete redefined.**

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## Certi-Shine MicroStain FSR Diamond Polish Instructions

### Products: Certi-Shine MicroStain, Certi-Shine Clear, Certi-Shine Fixative and Certi-Shine Finish Coat Ultra

#### I. PLANNING

- 1.) Existing surface conditions must be taken into consideration prior to estimating and planning the installation. Some items to consider are; (note, this list is not intended to be absolute, other variables and unknowns may develop during the planning and installation stages)
  - a. Determine if there are any coatings on the surface and what will be required to remove.
  - b. Check surface flatness for high and low spots
  - c. Inspect the surface for cracks and other defects. Consider repairs required.
  - d. Test the surface hardness. Generally, softer concrete consumes more diamonds than harder concrete. Also, consider how the surface was finished. Hard troweled surfaces usually require more surface prep.
  - e. Equipment and electrical requirements.
  - f. Clients desired appearance. Stain(s), decorative saw cuts, exposed aggregate, shine, etc.

#### II. FLOOR PREPERATION

- 1.) Thoroughly clean the concrete surface, removing all coatings, dirt, oil and laitance with **StarSeal® EF Stripper**. For less dirty concrete surfaces use an all purpose cleaner/degreaser. Treat oil spots with oil emulsifier and oil absorber materials. Detail scrub with high pH detergent. Double scrub floor with automatic scrubber capable minimum of 80 to 120 pounds of head pressure, equipped with black stripping pads. Use proper dilution of high pH detergent. Scrub floor once without squeegee or vacuum. On second pass, remove water solution. Detail scrub with high pH detergent. Power rinse surface removing all traces of soap residue. Remove all water and residue and inspect the surface.
- 2.) **GRIND**
  - a. Grind the floor within 1-5 inches of walls with Certi-Shine 40's or 70's grit metal bond diamonds using planetary or counter rotating head machines or suitable polishing equipment with an overlapping capability. If grinding is performed dry, the equipment should be fitted with a dust collection system. Continue grinding in a cross hatching pattern until there is a uniform scratch pattern. Vacuum the floor thoroughly using a squeegee vacuum attachment, continue grinding floor within 1-5 inches of walls with Certi-Shine 120 grit followed by a 220 grit metal bond diamonds. Vacuum the floor thoroughly using a wet/dry VAC with squeegee after each grind. Inspect the surface for flatness, smoothness and test for absorbency as instructed prior to Certi-Shine application.
  - b. Grind the edges with Certi-Shine 70, 120, 220, 400, 800, 1500 grit electroplated diamonds

(as needed), removing all of the scratches from the previous grit using a variable speed edge grinding machine fitted with a dust collector. Vacuum thoroughly after each grind using a squeegee type vacuum attachment. Note: for small areas such as counter tops follow all procedures using a hand grinder. Inspect the surface for flatness, smoothness and test for absorbency as instructed prior to Certi-Shine application.

3.) **SURFACE ABSORBANCY TEST**

Perform surface absorbency test by applying water to a representative portion of the prepared concrete floor. A properly prepared surface, when dry, will immediately absorb clean water without any surface beading effects. If the floor fails the absorbency test perform section #4 Application of Certi-Vex Concrete Etch & Efflorescence Remover & Neutralization after Surface Grind.

4) **APPLICATION OF CERTI-VEX CONCRETE ETCH & EFFLORESCENCE REMOVER & NEUTRALIZATION AFTER SURFACE GRIND**

- a. Apply Certi-Vex Concrete Etch & Efflorescence Remover per data sheet instructions, by mop or plastic sprayer.
- b. Scrub in with an acid brush.
- c. Material will foam as reaction with efflorescence occurs.
- d. Neutralization:
  1. Make a solution of 1lb of baking soda to 5 gallons of water.
  2. Apply with power wash pick up tube (or hand sprayer) to the previously acid treated surface to neutralize acid. (Material will foam in contact with acid).
- e. Rinse all salts and residual acid thoroughly with clean water.
- f. Allow to dry or vacuum access water.
- g. Repeat neutralizing and rinse procedures until floor no longer reacts to neutralizing solution.
- h. pH Testing: After the Etch has been applied, cleaned and neutralized, and prior to application of any Certi-Shine System, perform pH test on floor slab to determine if any residual Etch material is still present. Perform one test per 100 sq.ft. of floor surface. Perform test as follows:
  1. Dampen sections of the floor with approximately 1/4 cup of water and let stand for 5 minutes.
  2. Use only unopened distilled water for the pH tests, container seal must not be broken prior to the tests.
  3. Apply pH paper strip to the floor surface in the wetted area.
  4. Evaluate color of pH strip against color gauge and record results.
  5. pH values must be between 9 and 11 for normal concrete (medium green on test paper). If values are below these numbers, (light green to yellow or below), repeat neutralization until satisfactory results are achieved.

### III. INSTALLATION

- 1.)
  - a.) Apply a light/thin even coat of **Certi-Shine MicroStain** without dilution to the surface with spray or follow by pulling it out with an EvenFlow Applicator at 200-600 sq.ft./gal (5.0-7.5 m<sup>2</sup>/L) depending on porosity of the concrete. Existing dense floors may require a dilution of 1 pint of water to 4 pints of Certi-Shine MicroStain. Prior to each application material must be mixed.
  - b.) After the material penetrates totally into the concrete, the stain should penetrate into the concrete as you apply it, allow to dry before reapplication. The reapplication should be done until desired surface staining effect is achieved or the stain no longer penetrates into the concrete floor.
  - c.) Do not allow the material to puddle. Spread out to an even coat as it absorbs into the concrete.
  - d.) Once the floor is treated with Certi-Shine MicroStain foot traffic should be avoided until all installation instructions have been completed. If it is required to walk on the floor to complete the installation then wear spiked shoes or clean socks.
  - e.) Allow to dry thoroughly 12-24 hours.
  - f.) Apply **Certi-Shine Clear** with pump up sprayer @ 400-600 sq.ft./gal. without dilution on porous floors or dilute with 1 part of clean water to 4 parts of Certi-Shine Clear for dense floors. Additional light coats may be required until the material no longer absorbs into the concrete.
  - g.) Do not allow the material to puddle. Spread out to an even coat as it absorbs into the concrete with an EvenFlow Applicator.
  - h.) After drying 45-60 minutes squeegee off or vacuum up excess material. If all material has absorbed just let the concrete dry.

i.) The surface must be burnished with a high speed propane burnisher equipped with a black stripping pad followed by hogshair and white polishing pads.

j.) Apply **Certi-Shine Fixative** by sprayer, roller or applicator @ 400-800 sq. ft/ gal. to the previously treated floor. Apply 12-24 hours or overnight after Certi-Shine application. Rinse off immediately with water after application of Fixative. There must be a person or two with either a wet mop and clean water or a walk behind floor scrubber that has water in it and a squeegee immediately behind the person applying the Fixative. Do not allow the Certi-Shine Fixative to dry. If material dries the floor will turn white. If this occurs then rinse immediately with water and burnish with a black stripping pad. Rinse again with clean water and vacuum up water.

- 2.) After the application of Certi-Shine Fixative is completed: Use CIMEX Diamond Finisher CR76DF 30" or equivalent. Wet diamond polish the floor with Certi-Shine resin bond diamond grits, utilizing the same techniques from the GRIND section II.2. Use 800 grit for silver shine, 800 & 1500 for gold shine and 800,1500 & 3000 for platinum shine. First grind the edges with pads of the same grit and then the remaining floor, removing all scratches from the previous grit. After each pass clean the surface thoroughly using clean water and an auto type scrubber or mop and wet vacuum. Begin the polishing portion the first grit level must be two above the grit level used at the end of the grind portion. For example if the last grit used during the grid was 220, then the first grit used for the polish should be 600, the 400 grit is to be eliminated.
- 3.) a. **Certi-Shine Finish Coat Ultra** should not be diluted or altered. Apply with low-pressure (40-PSI) pump up or airless sprayer followed by backrolling with a 1/4" nap mohair roller. Sprayer should be fitted with solvent resistant hoses and gaskets. Care should be taken to ensure that enough solution is applied and pulled out to an even thin coat. Certi-Shine Finish Coat Ultra should be applied in multiple applications with sufficient material applied so that the surface remains wet for a few minutes before penetration into the concrete, thin coats that dry quickly are recommended. See Coverage Section. Surface residues, pools and puddles should be broomed out thoroughly until they completely penetrate into the surface. Additional light coats may be required until the material no longer absorbs into the concrete. Do not over apply. **IMPORTANT:** After thorough drying, usually 12-24 hours depending on temperature and relative humidity, the floor must be burnished with a high speed burnisher or floor buffing machine equipped with a black stripping pad to remove excess Finish Coat Ultra from the surface. If not burnished the excess will black mark.
- 4.) The floor can be used as soon as it is totally dry.

#### IV. EQUIPMENT

Professional quality equipment should be used at all times

- a. Certi-Shine diamonds
- b. Concrete Polisher for Stain – CIMEX Diamond Finisher CR76DF 30" or equivalent
- c. Sprayer: Industrial hi-solids pump sprayer - Manufactured by Chapin or Hudson
- d. Roller: 1/4" nap - Natural Mohair
- e. EvenFlow Applicator System

#### V. MAINTENANCE

Floors prepared with the Certi-Shine System require little maintenance. General housekeeping is recommended to keep floors clean and looking new. If cleaning is required, spills should be cleaned when they occur. Dirt may be hosed off with water. Heavily soiled areas may be cleaned by mop or by scrubbing with a floor machine equipped with a scrubbing brush and **StarSeal® EF Degreaser & Cleaner** cleaning detergent. Rinse and allow to dry. For more details, see TN 40 Certi-Shine Maintenance. Every 2-3 years a light coat of Certi-Shine Finish Coat Ultra WB can be applied and burnished.