



ElectraGuard ESD Epoxy Floor Paint

Installation Instructions for use over concrete

Release Date: 6/30/2022, Revision Date 3/10/2023*

What's in the pail: The ElectraGuard high gloss ESD floor paint system is a static dissipating epoxy based coating. **The way it works:** Static electricity (typically generated as a by-product of movement) flows into the floor coating and is discharged into the electrical ground system of the facility. **Note:** The following instructions shall be reviewed prior to installation. This document is the condensed version of the full instructions that cover the details for application to multiple subfloors that is [posted at this URL](#).

1. Basic Requirements: Flooring must be installed at the final stage in any type of construction. Area lighting and HVAC must be running and fully functional. The temperature of the building and concrete slab must exceed 60° F. Read, comprehend and follow the safety recommendations as reported in the SDS sheets for the materials that will be installed.

2. Receiving: Inspect the inbound shipment and insure that the pails are intact and tightly sealed in the original containers and that they are clearly marked with ElectraGuard by United Static Control. **Before accepting shipment:** If the shipment has been damaged in any way, take photos and report the damage to the driver or freight carrier immediately. Mark the damage on the bill of lading and contact United SCP's freight department immediately at 719 676 3928 extension 7001.

3. Inspection: The highest quality of materials and workmanship are employed in the manufacture of our materials and careful inspection is made prior to its shipment. It is the installer's responsibility to verify the accuracy of the order, insure the materials are checked for consistent dye lots, damage, defects and satisfactory color and that the bond strength of the product to the concrete subfloor is sufficient for the needs of their clientele.

4. Storage: Store the material indoors and in a climate controlled environment.

5. Moisture Testing of Concrete Slab: The ElectraGuard System has shown itself to be tolerant of high vapor emission from the concrete although excessive vapor emission may increase the conductivity of finished floor thus affecting its warranty. As such, prior to installation, test the concrete slab in accordance with ASTM D4263. This test involves taping an 18" x 18" polyethylene sheet to the concrete subfloor and then waiting at least 16 hours prior to collecting the results. Visible condensation on the sheet or darkening of the concrete indicates

excessive moisture. Should the testing indicate excessive vapor emissions contact United Static Control Products.

6. Preparation of Concrete: Test the concrete for porosity by sprinkling a few drops of water on it. If the water readily soaks in to the concrete (in less than 10 minutes) it will readily absorb the epoxy and may not require further preparation other than cleaning. Typically this type of concrete has a dull (not shiny) appearance. This type of concrete is somewhat unusual. Contact United for details.

If the water beads up on the top of the concrete (typical) or if the concrete is shiny and hard troweled the best adhesion is achieved by lightly diamond grinding the concrete to an SP-2 profile. As SP-2 profile is similar to the texture of the grooves on a phonograph record.

The second best method of preparing the concrete is to Diamabrush the concrete using a 100% profile that, at minimum, replicates the depth of grooves that are found on a phonograph record. This texture must cover the entire concrete slab 100%.

NOTE: All concrete sealers, parting compounds or coatings that inhibit the adhesion of ElectraGuard MUST be removed prior to the application of ElectraGuard.

After the concrete has been sufficiently profiled, auto scrub or damp mop the concrete using ElectraClean diluted 8 ounces to a gallon of clean water. Be sure no dust or other contaminants remain on the subfloor. Allow the concrete to dry for at least 4 hours prior to proceeding. **Note:** Always verify bond strength per Section 5 after preparing the concrete for the coating.

7. Mock-up / Bond Strength Test: Mask an area approximately 2' x 2' using standard blue painters tape. Follow the instructions for performing this test that are [located here](#).



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8. Masking: Mask walls and other encumbrances.

9. Repairing Concrete / Filling expansion

Joints: Should this optional process be desirable follow the instructions for performing this procedure that are [located here](#).

10. Install Ground Straps: Install 2 each electrical grounds for floors under 3,000 SF and 1 additional ground every 3,000 SF thereafter. [This is the preferred method](#).

11. Application of ElectraGuard: Catalyzed ElectraGuard should be used within six hours of mixing, therefore prepare only the quantity necessary for immediate use. Add the pre-measured catalyst to the epoxy base. Stir gently using a low speed drill with a rotary paint mixing attachment until the catalyst has been thoroughly mixed into the base and the pigments have been well blended into the mixture. No solids should remain on the sides or bottom of the pail and the mixture should look creamy with no clumps. Allow this catalyzed mixture to stand 5 minutes. Pour into the appropriate size paint tray.

Note: United SCP recommends using a high quality 18", 3/8 nap roller for application of ElectraGuard. Apply the first coat of the catalyzed material in a thin uniform coating pattern as follows.

In most cases start in a corner of the area: Trim the corner and about 5 feet along the walls with a 4" line roller. Taper this application (thick towards the walls and very light on the side facing you). Immediately roll into this trim with the larger paint roller. Dip the large roller in the tray; roll on tray top until the roller is evenly coated and not sloppy wet. Start back about 4 feet from the trim and evenly roll a coat into the trim and back onto the floor towards you. When the large roller is low on paint repeat the process.

Always apply the paint back about 3 feet from where you left off and roll into the wet paint (where you left off) and back towards you. Avoid thick edges and let the roller do the work (no need to press the paint roller). When you look at the area under good lighting follow the gloss! The coating should be even, thin and contain a

minimum of roller marks while covering the concrete 100%. Most clients have the best luck applying sections about 5' long at a time. Trim as you go and avoid splatters and drips. Take your time and roll smoothly!

Cleanup: Remove wet ElectraGuard with warm water. Once dry, ElectraGuard is difficult to remove but standard safety solvents may be used if required.

Number of Coats: *For optimum wear resistance, apply a coat a day for 3 days, allowing the product to thoroughly dry between each coat. Dry time will vary depending on the humidity and temperature of the installation area. The warmer the area and the lower the humidity, the faster the coating will dry. Dry time may be sped up using air movers (48" fans). However, do not blow the air directly on the floor or the ceilings.

12. Sealing ElectraGuard ESD Epoxy:

ElectraGuard ESD Epoxy may be sealed for ultimate shine and scuff resistance. **Note:** As applied, coatings of ElectraGuard provide optimum conductivity and a matte type (low glare) finish. Optimum wear performance, scuff resistance and a medium gloss is achieved via topical applications of 2 thin coats of ElectraThane.

ElectraThane application instructions: If needed thoroughly remove loose dirt and dust from the cured ElectraGuard via sweeping or vacuuming. Mop on thin even coats of ElectraThane using non linting synthetic finish mop, wax applicator or microfiber mop. Allow the coats of ElectraThane to dry (depending on humidity and temperature) for at least 90 minutes before application of next coat. Optimum GLOSS is obtained by mopping on one thin coat of ElectraGlaze over the ElectraThane. ElectraGlaze acts as a sacrificial coating. ElectraGlaze may be recoated without removal when needed.

13. Move in Tips: NOTE: Do not introduce water to any new ESD flooring for a period of at least 30 days after installation. Protect the floor during move in. Wear disposable shoe covers. Cover the flooring with Ram Board or Masonite sheet when moving in heavy items



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(especially with forklifts and man-lifts). Do not drag items such as benches and pallets across any type of ESD flooring. Place carpeted “clean off mats” in the doorways of the ESD area to remove contaminants from footwear and carts. Use carpeted mat that are long enough to take at least three steps on it prior to entering the ESD control area. Use new soft brooms, dust mops, damp mops, buckets and other cleaning tools dedicated for use on the ESD flooring only. Mark these items “for use in ESD area only.”

14. Maintenance: Dry dust mop the floor on a daily basis. Use a floor magnate to pick up ferrous chips and other steel debris. Sweep the floor as needed using a soft (new) push broom and an oil-free sweeping compound that will leave no oily residues. In most cases, scuff marks may be easily removed from the top coat of ElectraThane and ElectraGlaze by using ElectraShine and a high speed buffer equipped with a white or champagne colored pad. To auto scrub or damp mop, use a dilute solution of ElectraClean and water.

15. Testing: ElectraGuard meets ANSI ESD S20.20-2021, table 2. Personal Grounding Requirement Product Qualification and Compliance Verification. The most common test method for ESD flooring is ANSI/ESD STMS7.1. Contact United for details should this be a requirement.

16. Disclaimer: Every effort has been made to provide accurate and reliable information in this document. However, United SCP cannot accept any responsibility for loss or damage that may result from the use of this information due to the possibility of variations of processing or working conditions and/or workmanship that is beyond our control. ElectraGuard is not designed to encapsulate concrete. As such, dyes, markers, etc. may bleed through the coating and should be removed prior to installing the material.

Tech support is available 24/7 for our installers and customers by dialing 719 676 3928 and selecting option 8.

Approved for initial release: SRC 6.30.2022

*Revision 3.10.23: added information on concrete porosity water test to section 4, preparation of concrete. Approved SRC

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