



Static Solutions GP-5600 Latex Based ESD Floor Paint Installation Instructions for use over concrete

Release Date: 06/30/2022

What's in the pail: GP-5600 ESD Floor Paint is static-dissipative urethane enhanced floor paint. It's made using a unique electrically conductive polymer. **The way it works:** Static electricity (typically generated as a by-product of movement) flows into the 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 intended as an enhanced addendum to the instructions provided by Static Solutions for this material. The Static Solutions instructions are [posted at this URL](#). Items marked with an asterisk (*) are recommendations provided by United SCP. 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. GP-5600 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.

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 inbound shipment and insure that the pails are intact and tightly sealed in the manufacturers original containers marked GP-5600 by Static Solutions. 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 GP-5600 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.

3. Moisture Testing of Concrete Slab: GP-5600 has shown itself to be tolerant of high vapor emission from the concrete although excessive vapor emission may increase the conductivity of finished floor and could negatively impact the bond strength of the coating. 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 Inc.

4. Preparation of Concrete: *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.

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 24 hours prior to proceeding.

5. Mock-up / Bond Strength Test: Mask an area approximately 2' x 2' using standard blue painters tape. Apply a single thin coat of PS-5700 primer using a ¼" high quality Wooster roller or similar. Allow the primer 3 hours to dry. Agitate a small sample container of the GP-5600, pour into a paint tray and roll on top of the primed mock-up using a ¼" high quality Wooster roller or similar.

*After 3 hours, apply a second coat. Allow the mock-up to dry for 24 hours. Test bond strength as follows:

*With a razor knife etch a 1" x 1" "tic-tac-toe" pattern on the epoxy. Cover this pattern with standard masking tape, wait 2 minutes and quickly pull the masking tape from this pattern. Observe the tape. When a good bond is achieved minimal paint will be removed with the tape. [Short Video](#).

Test the electrical conductivity to ANSI/ESD S7.1 (point to point). The coating should achieve a conductivity of <1.0E09 ohms.

5. Masking: Mask walls and other encumbrances.

6. Prime the Concrete: Best adhesion is achieved by applying one thin coat of PS-5700 primer using a ¼" high quality Wooster roller or similar. The typical coverage of this product is 1,500 sf per gallon per coat. Allow this coating 12 hours or longer to dry prior to top coating with GP-5600.



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7. Install Ground Straps: *United has documented more reliable resistance to ground attributes from installing 2 each electrical grounds for floors under 3,000 SF and 1 additional ground every 3,000 SF thereafter. [This is the preferred method.](#) The ground foil is applied on top of the primer and beneath the GP-5600. The ground kits are available from UnitedSCP.

7. Application of GP-5600: Thoroughly mix GP-5600 using a paint agitator and electric drill set to a low RPM. Be sure to blend any solids at the bottom of the pail in with the ingredients in the base. Do not beat excessive air into the coating.

Apply the material using a 1/4" high quality paint roller in long continuous strokes assuring complete coverage. Do not apply pressure to the roller. Allow the weight of the roller to set the amount of paint that is applied. Use a fine bristle brush to paint hard to reach areas and cut-ins. Store wet paint rollers in an airtight trash bag for re-use the next day. Clean up or remove wet paint using warm water.

Number of Coats: *For optimum wear resistance, apply three coats, 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.

Note: Static Solutions recommends allowing the GP-5600, 72 hours before allowing general industrial traffic. However, the coating should be ready for light foot traffic after drying overnight.

Note: Shoe covers are recommended.

Sealing GP-5600: For optimum ease of maintenance, increased gloss and durability, the cured GP-5600 may be sealed with 1 thin coat of AF-5500 ESD floor finish. Apply this coating with a microfiber mop. The typical coverage of this product is 1,500 SF per gallon per coat.

Testing: GP-5600 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.

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

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 AF-5500 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.

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

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