

Statguard® ESD Dissipative Rubber Flooring Tiles Installation Instructions



NOTE: Statguard® ESD Rubber Tile requires Special Installation using Full Spread Conductive Epoxy Adhesive and Braided Ground Straps.

Introduction

We have prepared the following recommendations and instructions that apply to most applications.

We recommend that these instructions be read and understood prior to beginning installation. Please contact us at 508-481-6869 should you have any questions.

We recommend that Statguard® tile adhesive be used with the Statguard® tile. This adhesive is proven to work with the Statguard® tile and as a system they meet the electrical properties as stated within, as well as meets ANSI/ESD S20.20 minimum recommended technical requirements. If another adhesive is used the product may not perform as stated.

IMPORTANT: CLAIMS WILL NOT BE HONORED FOR COLOR VARIATIONS OR SURFACE BLEMISHES ONCE TILES HAVE BEEN CUT AND/OR GLUED TO THE FLOOR. ONLY UN-CUT, UNGLUED TILE CAN BE RETURNED.

Material Handling, Storage, and Inspection:

- A. Store tiles off the ground and out of the elements. DO NOT STACK SKIDS.
- B. Check for completeness of order. Check all tiles for color and profile. Dye-lot numbers are indicated on the packaging. Color may vary with different dye-lots.
- C. If the tiles are to be re-packed for storage, or shipment, they must be stacked profile to profile and back to back.
- D. Prior to installation, the rubber flooring products and the adhesives must be conditioned to an ambient temperature for 24 hours, at the actual site, of not less than 60° F

(15° C) to not more than 80° F (30° C). In severe climates outside the acceptable temperature range, a seven-day conditioning period may be necessary before installation takes place. Such temperature range must be maintained also during installation and curing of the adhesive.

General Conditions

- A. **Expansion Joints:** No attempt should be made to lay tiles over slab expansion joints. Instead tiles should stop 6" before the joint on either side and the joint should be capped with an expansion plate, which is fastened to the slab on one side only, allowing for the joint to slide without restriction.
- B. **Extreme Heat from the Sun and Heaters:** The use of blowers or radiant heater during the adhesive cure will cause the tiles to swell and peak. During the period 24 hours before installation and throughout the adhesive curing period, the subfloor temperature should not be colder than 60° F or warmer than 80° F. Sunshades must be used in areas where direct sun is present.
- C. **Hydrostatic Pressure:** Rubber flooring products will not adhere where "hydrostatic pressure" is present. This condition requires use of a permanent effective moisture barrier. This is an engineering problem and should be referred to an engineering company. A moisture condition of 3 lbs. per 1,000 sq. ft per 24 hours a day is the maximum allowable.
- D. **Adhesion Test:** There may be conditions when an Adhesion Test should be performed. The purpose of the test is to verify if there is a good bond to the subfloor and transfer of adhesive to the back of the flooring. This test should last at least 72 hours. After this time the removal of the rubber flooring should require significant force, with some delamination and the adhesive should remain bonded to both the subfloor and the rubber flooring.

Subfloor Preparation: Concrete

- A. On-grade and below-grade subfloors must be protected against ground moisture with an adequate membrane moisture barrier to prevent moisture migration or water vapor transmission.
- B. New concrete should be cured at least 28 days prior to installation. A neutral pH is necessary for installation. If the pH is greater than 9, it must be neutralized prior to installation.
- C. **Adequate moisture testing must be done.** Not more than 3% moisture content using a calcium chloride test or hydrometer is acceptable. The following test for moisture may be acceptable: Securely taping down on all four sides a piece of polyethylene about 3 ft. square for 24 hours. If beads of water show on the underside of the polyethylene, the floor is too wet and in the case of new concrete, additional time must be allowed for drying. Testing for acceptable levels of moisture is mandatory for slabs below and on grade.
- D. The concrete surface should be dry and clean. The surface should be level, without surface imperfections which would telegraph through the rubber flooring. The surface should be flat within 1/8" in 10 feet. The surface should look like medium grade closed-coat sandpaper.
- E. Concrete slabs are often treated with Curing Compounds, Sealers and Hardeners. These treatments must be removed by mechanical methods from the surface by bead blasting or terrazzo grinding.
- F. All existing paints, old adhesive, grease, oil and other extraneous materials must be removed from the slab.
- G. **Floor Patch:** Cracks, depressions and rough surfaces should be filled with a top quality leveling Portland Cement mixture with at least 2000 PSI.

Existing Floor Recommendation

Old floor coverings should be removed completely. In cases where rubber flooring will be installed over Terrazzo, Ceramic or Quarry tile, the old tiles or terrazzo must be abraded thoroughly to remove glaze and waxes. Any loose tiles must be removed, level grout lines and other empty spaces with an approved commercial Portland type floor fill material. Application of any floor fill material should be done at least 24 hours prior to the start of the actual installation work. The area should be sanded before installation. Statguard[®] Conductive Epoxy can also be used as a filler or leveling agent only if slight leveling is necessary.

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Other surfaces or applications:

Contact us at (781) 821-5609 or contact our distributor for recommendations not addressed above.

Prior to the Installation of Rubber Tiles

- A. Define the center point of endwalls and connect them by striking a chalk line down the middle of the room. On this line, strike a chalk line connecting the sidewalls which will divide the room into quarters.
- B. Dry-lay the entire floor tile area. Check the tiles for possible imperfections or defects including trim, thickness and color. Replace any defective material prior to adhesion.
- C. A line indicating the space for fitting border tiles should be made. Measure the distance to each wall to provide a half tile or larger border for the completion of the installation. Adjust the center line to accommodate this requirement.
- D. Line up the first row of tiles with a string line or a straight edge. Lay a second row either Ashlar (Brick pattern) or point to point aligning the studs, squares or ribs very carefully. Tiles may be butted corner, whether point to point or ashlar. It is important not to pressure fit the joints.

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Mixing the Solvent free and Non-flammable Adhesive

Statguard[®] Two-part Full Spread Conductive Epoxy

One-gallon unit covers approximately 100 - 120 square feet and has a one-year shelf life. The Statguard[®] Full Spread Conductive Epoxy Adhesive must be in an even temperature of 70° F ±10° for 24 hours prior to mixing. Mix content of part B (Curing Agent) into larger part A (Resin) can. **DO NOT MIX ON THE FLOOR.** Mix using a standard paint paddle, a 1/4 drill or a "Jiffy Blade". Statguard[®] epoxy cannot be hand mixed. Drill mix the epoxy until uniform color is obtained. **WARNING:** Do not cover mix, use low RPM drill. Application: Pour mixed material on the subfloor and trowel the adhesive using a 1/16" square notched trowel. **DO NOT MIX MORE THAN ONE UNIT AT ONE TIME.**

DO NOT USE RE-NOTCHED TROWELS.

Better quality trowels will last at least through the application of five units of epoxy depending on the actual surface.

After applying the Statguard[®] Full Spread Conductive Epoxy Adhesive, allow it to dry to a semi wet condition. The timing of this will vary according to air temperature, subfloor temperature, humidity and air circulation. Do not leave the adhesive spread on the floor for more than 20 minutes prior to placing the floor covering into it. If at the moment of laying the floor the adhesive is dry to the touch do not install the floor covering - remove and replace the adhesive.

INSTRUCTIONS FOR PROPER USE OF ADHESIVES ARE PRINTED ON THE LABELS. IF THERE ARE ANY QUESTIONS CALL BEFORE PROCEEDING. SAFETY DATA INFORMATION ON ADHESIVES IS AVAILABLE ON OUR WEB SITE: www.statguardflooring.com.

Installation

After the Statguard[®] Conductive Epoxy Adhesive dries to a semi-wet condition, immediately lay the pre-cut tiles into the adhesive. Do not pressure fit the joints. Rubber floor tiles have a natural expansion factor and do not have to be pressured-fitted. When spreading the conductive adhesive, always overlap the seam area with conductive adhesive to ensure sufficient bond of the seams. If more than normal installation foot traffic is necessary prior to 24 hours, cover the floor with plywood in traffic areas. Using a 100 lb. floor roller, roll the tiles diagonally in two directions. A second rolling should be done after one hour. After the second rolling care should be taken to remove fresh adhesive with a clean damp rag. **THERE SHOULD BE NO FOOT TRAFFIC AFTER THE SECOND ROLLING FOR AT LEAST 12 HOURS.**

Grounding ESD Rubber Tiles:

It is necessary to properly ground the Statguard[®] conductive floor adhesive in order to provide proper ground to the Statguard[®] floor tile. We recommend that this be done using the Statguard[®] braided ground strap which is supplied with the adhesive.

Before applying adhesive and laying tiles, locate a properly grounded electrical receptacle that you will use as your source of building ground. It is recommended to have this location in the middle of the longest edge or sensibly chosen to give equal distance to ground from the flooring space. If multiple braided ground straps are used, space them evenly as needed. The number of ground wires will vary with the number of square feet. We recommend one braided ground strap for every 2,000 square

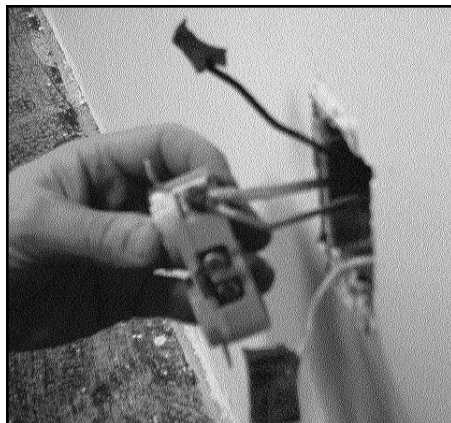


Figure 1. Use ground screw of electrical outlet connected to metal junction box and equipment ground for grounding.

feet.

Disconnect the power at the electrical panel for the receptacle being used. Remove faceplate of outlet receptacle. Pull the outlet out of the outlet box to gain access to the outlet ground. The ground strap can be either run up the wall or be run inside the wall for connection to the receptacle ground. Attach braided 36" ground strap, # 8 ring terminal end, to the outlet box using the outlet box ground screw terminal.

If no screw ground terminal is in the outlet box, use the ground screw terminal on the outlet itself. Replace the outlet into the outlet box and install faceplate. Test ground strap for proper grounding by checking continuity or by measuring resistance from the end of a braided ground strap to equipment ground. Resistance should be <1 ohm and as the building's electrical system is connected, the measurement can be made from the ground of a three wire electrical outlet. It is recommended to coil and keep the remaining length of the ground strap off of the floor to prevent possible damage prior to adhesive and tile installation.

During the adhesive application, lay the ground strap into the adhesive pointing to the center of the room. Simply lay the tile or tiles over the ground strap and upon adhesive set up your grounding will be complete.

Should you require further assistance please call (781) 821-5609.

Important advice. These installation procedures are recommendations designed for the experienced and competent carpet tile installer such as those trained and certified in the Re:Source network of solution providers. Strict adherence to these procedures will result in a quality installation under most conditions.

Any situation that could alter the installation procedure or jeopardize the possibility of a satisfactory installation, such as identification of defective material or unusual installation conditions, creates a responsibility for the installer to STOP the installation immediately and call Statguard Flooring at (781) 821-5609

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Statguard Flooring will be responsible, within the scope of product guarantees, for defective materials, but this does not include materials with defects identified prior to installation. Statguard Flooring will not be responsible for workmanship or problems caused by improper installation.

Problems caused by varying from any part of these instructions will become the responsibility of the installer and not Statguard Flooring. Problems created by varying from these instructions will void all otherwise applicable warranties for the product.

Integrity Testing

At initial installation, and quarterly, ESD protective floor including those of Statguard® ESD Rubber Tiles should be tested verifying resistance to ground (RTG) of less than 10^9 ohms by a Surface Resistance Test Kit.

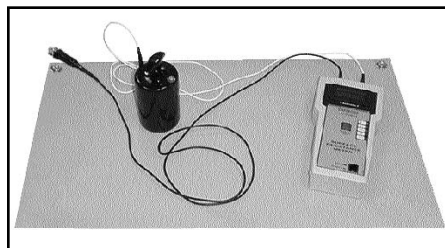


Figure 2. Testing RTG with Surface Resistance Test Kit.

Limited Warranty

Statguard Flooring warrants that: Statguard® ESD Dissipative Rubber Flooring Tiles will be free from defects in materials and workmanship for a period of ten (10) years after purchase, and will meet the minimum technical requirements of ANSI/ESD S20.20 for ESD Floors.

This warranty shall apply only if such products are installed following the Statguard Flooring Installation Instructions document including using the recommended conductive adhesive and copper foil grounding strips and have been tested by an authorized Statguard Flooring personnel after installation. Such warranty shall be voided if such products are removed from the site of their original installation.

Within the warranty period, a credit for purchase of replacement Statguard® ESD Dissipative Rubber Flooring Tiles, or, at Desco's option, the Statguard® ESD Dissipative Rubber Flooring Tiles will be repaired or replaced free of charge. If product credit is issued, the amount will be calculated by multiplying the unused portion of the expected ten years life times the original unit purchase price.

Call Customer Service at (781) 821-5609 for a Return Material Authorization (RMA) and shipping instructions and address. Include a copy of your original packing slip, invoice, or other proof of purchase date. Any material under warranty should be shipped prepaid to our factory. Warranty repairs will take approximately two weeks.

If your material is out of warranty, Statguard Flooring will quote repair charges necessary to bring your unit up to factory standards. Call Customer Service at (781) 821-5609 for a Return Material Authorization (RMA) shipping instructions and address. Ship your material prepaid.

Warranty Exclusions

THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESSED AND IMPLIED, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH ARE SPECIFICALLY DISCLAIMED. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean or repair products.

Limit of Liability

In no event will Statguard Flooring or any seller be responsible or liable for any injury, loss or damage, direct or consequential, arising out of the use of or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

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