

StaticSmart™

ESD Carpet Tile Installation Guidelines

under structure, local building codes, and end user's preferences.

1. Assemble and connect one StaticSmart Connector Clamp from under the carpeting to the access floor pedestal.
2. Place about 12" of the foil strip into the JULIE INDUSTRIES CONDUCTIVE RELEASABLE ADHESIVE. When the adhesive becomes dry and tacky, fasten the clamp to the access floor pedestal below. Make sure the Staticsmart Connector is fastened tightly onto the pedestal (Figure F).

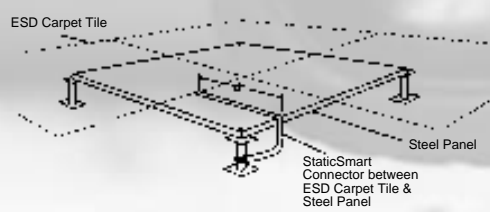


FIGURE F

locations where the access floor system is being grounded, the contractor should install the StaticSmart Connector. All systems should be grounded at a single point. Grounding systems should follow recommendations of electrical contractor and building code (Figure G).

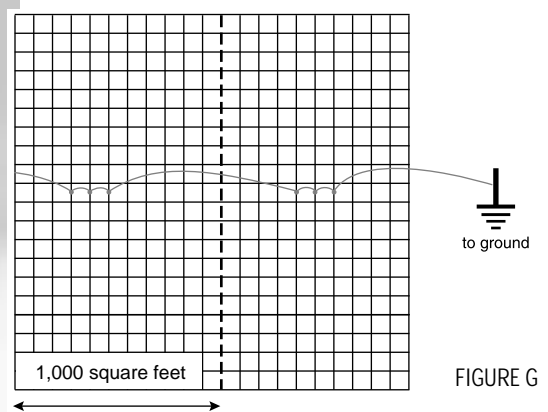


FIGURE G

GROUNDING FREQUENCY:

Attach one Staticsmart Connector to the access floor under structure every 1,000 square feet.

GROUNDING ACCESS FLOOR SYSTEM WITH StaticSmart ESD CARPET TILE:

For stringer and bolted corner lock systems, contractor shall wire the access floor system to a bolt and 3 successive pedestal heads and run the wire every 1,000 square feet. In

Questions/Assistance

If in doubt, call JULIE Industries Customer Service at 978-988-8802, Monday-Friday between 8:30 am and 5:00 pm EST.

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Pre-Installation Preparation

- Check the quantity, color and lot numbers of the tiles before beginning the job. DO NOT MIX M.O. numbers (dye lots). Install by M.O. number sequence as indicated on the box. All claims for damages or deficiencies must be made prior to installation.
- The following installation guidelines should be reviewed prior to installation. JULIE INDUSTRIES will not be responsible for improper installation.
- Be sure that other contractors such as painters and masons, have completed their work or take the necessary precautions before installation begins.
- The flooring contractor, general contractor or building owner must have the slab or concrete floor tested for the following: surface pH, moisture transmission rate, and subfloor conditions. The results must meet our test guidelines as stated below. JULIE INDUSTRIES will not be responsible for installation failures if these guidelines are not strictly adhered to.

Site Testing and Conditioning

- The floor temperature, carpet tile and adhesive must be maintained at a minimum of 65°F for 48 hours before the installation and remain at this temperature and/or not rise above 90°F at any time during installation and 24 hours after the installation.
- The concrete must be tested for surface pH at several random points throughout the floor. The pH range necessary is 5 - 9. Otherwise, corrective action is required.
- The site must be tested for moisture randomly throughout the floor. The proper test procedure to measure moisture transmission is the Anhydrous Calcium Chloride Test run quantitatively. The maximum allowable amount of moisture transmission must not exceed 3.0 lbs./1,000 sq. ft. in 24 hours. This maximum threshold must hold true throughout the life of the product. Otherwise, corrective action is required.

Floor Preparation: General

- The floor must be clean and free of all foreign matter: grease, oil, paint, wax, dirt, dust, old adhesives or any material that might interfere with the overall bond strength of the adhesive. The floor should be sound and level. All holes, cracks, depressions or protrusions must be filled with a compatible latex patching compound, and then sealed with a latex liquid and allowed to dry.
- Caution: Cutback asphaltic adhesive must be completely and thoroughly removed. No traces can come in contact with the newly applied adhesive. Failure to do so will result in an installation failure.

Floor Preparation: Specific

CONCRETE: New concrete must be clean, dry and cured for a minimum of 90 days and free of parting agents. Old concrete

should be checked for moisture. Dry, dusty, porous floors must be sealed.

CERAMIC TILE AND TERRAZZO FLOORS: Ceramic tile must be solidly adhered. Any loose tile must be removed. Grout lines must be filled and leveled. Strict attention must be paid to the open time for adhesive to become permanently tacky.

VCT, VINYL TILE and VAT: Damaged tiles should be filled or replaced, and loose tiles re-glued. Patching compounds should be used to level any floor irregularities and waxes should be fully stripped to ensure a proper bond. VAT should never be sanded or scraped without proper safety and handling precautions. Special care and precautions in accordance with state and local codes must be taken for asbestos tile abatement.

OTHER RESILIENT FLOORING: Sheet vinyl should be removed before installation.

OLD CARPET: Remove old carpet and adhesive completely before proceeding.

STEEL FLOORING: Steel trenches must be clean, level, dry and free from dust, paint or other extraneous materials.

WOOD: Plywood, hardwood and particle board used as subflooring must be a flooring grade and installed to manufacturer's recommendations. Joints must be checked for soundness, and any loose boards re-nailed. Old finishes must be compatible with adhesive or removed and porous wood must be sealed.

STEEL PANELS: Steel panel top sheets must be clean, level, dry, and free from dust, paint or other extraneous materials.

CONCRETE PANELS: Concrete must be clean, dry and have a pH range of 5-9. The concrete top should be level and free from dust, powder, paint or other extraneous materials.

HPL PANELS: Remove and strip any old wax from the surface. The HPL must be clean and free from dust, powder, paint or other extraneous materials.

Installation Procedures

IMPORTANT - Use only JULIE INDUSTRIES CONDUCTIVE ESD RELEASABLE ADHESIVE conductive, pressure-sensitive carpet tile adhesive for flooring applications.

Use with sufficient ventilation.

Concrete Floors:

For this application, use a 1/16" x 1/16" U-notched trowel. Adhesive should be full spread on the floor to achieve complete coverage of the tile. Do not use a roller to spread adhesive on concrete floor installations.

Access Floors:

For this application, use a 6" wide roller with 1/8" nap. Adhesive should be rolled in a light diagonal strip on each access floor panel avoiding screw holes and seams. Do not use a trowel to spread adhesive on access floor installations.

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Allow adhesive to dry completely before the tile is put in place and rolled. A fan can help reduce drying time by as much as 40%. The average drying time is 60 minutes on concrete and 90 minutes on VCT. As it dries, the adhesive becomes tacky. This will vary depending on humidity, temperature, and floor surface. Coverage using this method is 30 yards per gallon. To make sure the adhesive is permanently tacky, the adhesive should not transfer to your finger. The adhesive ridges must be completely dry/tacky (Figure A).



FIGURE A

Adhesive can be removed from tools and carpet face with soapy water, then wiped with a rag dampened in a chlorinated solvent.

TILE:

1. Measure the area to find the best starting point for a maximum size perimeter tile. In some cases, due to doorways or partitions, the starting point is not the center of the room. Proper planning should avoid trimming perimeter tiles more than half their width (9" for 18" x 18" tiles). 2. Divide the room into four (4) quadrants. After selecting the starting point "X", snap chalk lines on the floor from the center of each opposite wall - chalk lines "AA" and "BB". The two center lines must bisect this point at right angles in the center of the room - starting point "X". To achieve a perfect right angle, which is critical, form a triangle by measuring 6' x 8' x 10' (Figure B).

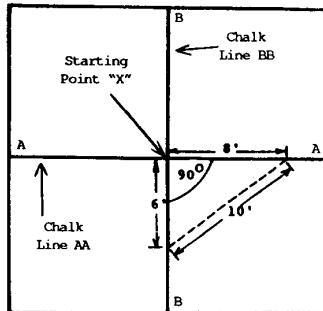


FIGURE B

3. After the JULIE INDUSTRIES CONDUCTIVE RELEASABLE ADHESIVE has setup, begin to lay the tiles. It is very important that the chalk lines be used as a guide for lining up the edges of the tiles.

4. Using the pyramid technique, install one quadrant at a time, following the numerical sequence as shown in (Figure C).

5. The corners of the tiles should be flat to ensure proper fit. Seams should lightly touch.

6. CAUTION! DO NOT JAM CARPET TILES - Use a seam roller to blend and enhance the seams.

7. The loop pile tiles will have some yarn blossoming at the edges, which is inherent to this type of construction. Face yarn or the strands from the primary may require occasional trimming.

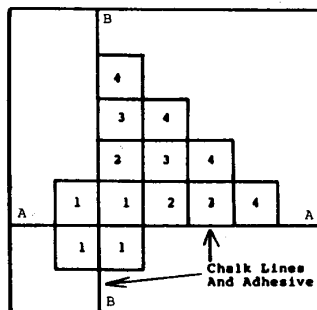


FIGURE C

8. Keep foot traffic off newly laid area while installing to prevent shifting.

9. When installing the tile to achieve a monolithic look, install the tile in the same direction as the pile directional arrows printed on the back of all the tiles.

CONCRETE FLOOR GROUNDING:

JULIE INDUSTRIES CONDUCTIVE RELEASABLE ESD ADHESIVE has been designed to provide an efficient conductive path-to-ground for static electricity occurring on the surface of the floor (Fig. D). Several acceptable methods are available for grounding ESD CARPET TILE. These methods are dependent on the site conditions and end user's preferences.



FIGURE D

1. Either a 2" x 24" copper grounding strip can be installed or a continuous strip (roll) can be laid the entire length of the installation.

2. The copper ground strip or roll should be placed over the dried "tacky" JULIE INDUSTRIES CONDUCTIVE RELEASABLE adhesive. Approximately 6" of the copper strip should continue up the wall. To tap into an exposed steel column, a hole is drilled into the steel beam 2" from the floor. Tap the hole and secure the copper strip using a screw and washer (Figure E).

3. If there is not an accessible ground, prior to installation a certified electrician can tap into the electrical circuitry and drop a wire (no smaller than #10 stranded copper wire) inside a wall and cut a small hole in the baseboard so the wire can emerge. The stranded copper wire should be securely fastened to the copper ground strip. The small hole can then be patched.



FIGURE E

GROUNDING FREQUENCY:

JULIE INDUSTRIES recommends the copper grounding strips should be placed approximately 25' to 40' apart throughout the installation or to all accessible I-beams. A foil strip should be installed at least every 1,000 square feet.

Electrical Resistance (measured in ohms)	Typical Value	Acceptable Range
ESD S7.1 Test (Average 5 or more readings between electrodes 3' apart across the seam and floor to ground)	1.0 x 10 ⁷ Ohms	1.0 x 10 ⁸ Ohms maximum to 2.5 x 10 ⁴ Ohms minimum

Access Floor GROUNDING:

Several acceptable methods are available for grounding access floor panels. These methods are dependent on the type of access floor