Electrical Grounding of ESD Flooring

Use with ESD Coatings, All United SCP Vinyl Tiles, Sheet Goods & Carpeting

OVERVIEW: All ESD flooring must be grounded to allow the electrostatic charges to flow to ground. The following method provides a secure connection via easy attachment of your ESD flooring system to AC electrical ground. Our ESD Flooring requires 2 ground connections for the first 3,000 square feet and one additional ground for every 3,000 square feet thereafter (exceeding this amount with not raise the conductivity of your flooring systems).

MOST COMMON METHOD:

1) **AC Electrical Outlet**: Locate AC power outlet. Remove electrical face plate cover (typically plastic). Starting at the outlet cutout (on the drywall) run a piece of our 2" wide aluminum foil ground tape down wall and onto clean dust free concrete (or other flooring substrate) about 2 or 3 inches. Note: for a great looking attachment cut any wall base, peel back base and run strip behind re-glued base.

2) Run another aluminum foil strip (approximately 6" to 12" long) over this 2" or 3" piece that you've placed on the floor. Run this strip parallel to the wall and adhere to the flooring substrate (concrete, VCT, or another type of approved subfloor. Please see figure 1.

3) **For Coatings:** Lightly sand the foil on the floor with 320 grit emery paper or course scotch bright. Remove abrasive residue with a clean piece of paper towel. Apply the coatings over this strip.

For Glue Down Tiles and Sheet Vinyl: Cover the foil that has been applied to the subfloor with the conductive adhesive, place the tile or sheet vinyl over this adhesive and ground strip and roll with a 100 pound vinyl roller.

For Interlocking Tiles: Place the interlocker over the aluminum foil that has been applied to the subfloor.

For ESD Carpet Tile: Cover the foil that has been applied to the subfloor with the conductive adhesive, place the carpet tile over the adhesive and ground strip and roll with a 100 pound vinyl roller.

4) **All Materials:** Replace the plastic AC electrical face plate cover with a metal face plate cover making sure metal face plate cover contacts the aluminum strip. Please see figure 2.

5) Your floor is now grounded. The ground foil on the wall may be painted if desired.

Figure 1

Figure 2

OTHER METHODS:

Alternate Method A: Copper ground rods are often used in Military and Munitions environments and are not typical (nor normally recommended) for electronic manufacturing. Simply remove oxidation from rod, wrap tape as shown, clean up ground by installing aluminum pad, clean oxidation from pad and coat with paint or trowel over with conductive adhesives. Add a clamp that connects the ground rod and the outside of the ground tape for best results. Click to expand photo.

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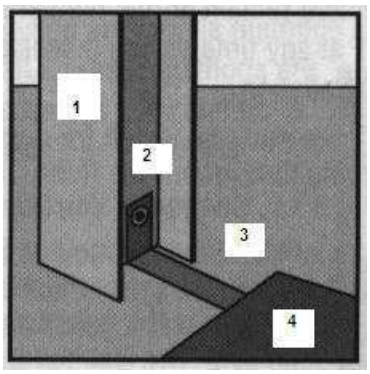
Alternate Method B:



In this sketch a steel column (1) is used as an attachment point (2) for the aluminum ground foil (3) for subsequent application of esd flooring adhesive or coatings (4). Simply remove rust from steel column via grounding, run foil down column, onto concrete and coat or trowel adhesive. Best connection is made by securing strap to column with metal screw.

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

Revision history:
3/09/2013: Initial release
11/14/2019: secured hyperlinks
5/19/2022: Clarified application of glue down tiles, interlockers, sheet vinyl and carpet.

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