



Ground Zero Electrostatics Installation of PolyStat Anti-Static Sheet Vinyl Flooring

Material Overview:

The Ground Zero PolyStat static control range of ESD Floor Coverings consist of materials designed to specific resistance requirements and are categorized into three groups; Antistatic, Static conductive and Conductive. Installation of PolyStat ESD Vinyl's sheet goods is similar to standard (non-ESD) Vinyl sheet goods with several important differences. Pay particular attention to section Three and Seven of this document! A overview of the differences between PolyStat and standard Vinyl sheet good installation are listed for your convenience:

1. The following conductive adhesives are approved for use with PolyStat ESD Sheet vinyl. No substitutions are permitted: GZ C-2000 Conductive liquid, URAS Conductive fiber reinforces or GZ Compu Release. Please contact Ground Zero for specifics relevant to selection of adhesives.
2. Grounding mechanisms consisting of Ground Zero Copper or Brass foil grounding grid must be applied and grounded Prior to spreading of adhesives. More information on ground grid placement can be found on our Ground Grid Placement Specifications
3. Proper spread rate of adhesive is critical, proper trowel dimensions and rolling parameters must be used (see section 7).
4. The GZ C-2000 adhesive used with PolyStat Flooring may be of slightly lower bonding strength than standard vinyl adhesives, as such proper use of recommended rolling procedures, adhesive usage, adhesive spread rate and coverage must be utilized, see section 7.)
5. PolyStat ESD Flooring can be installed by using the double drop method (see section 7) when installing on hard troweled concrete or substrates that are somewhat non-porous. Laying the material into wet adhesive is acceptable on porous substrates, however do not allow excessive adhesive "tack" when applying in this manor.
6. PolyStat ESD Vinyl must be conditioned and relaxed prior to installation, (see section 3) and temperature in room must be maintained in the standard plant operating range 72 hours before, during and after the installation.

Site and Material Preparation:

1. Perform calcium chloride moisture emission testing on concrete floors regardless of the age or grade level of the concrete. Testing shall be performed around the perimeter of the room and any area where concrete moisture emissions is evident. GZ-C2000 adhesive has been successfully utilized in conditions up to 8.0 lbs per 1000 sq/ft in a 24 hour period and is fully

INSTALLERS CHECKLIST

- ☀ Conduct Calcium Chloride moisture test, insure that the results do not exceed 5.0 lbs per 1000 square feet in a 24 hour period. Test for pH levels insure that the pH of concrete substrate does not exceed 9.
- ☀ Perform bond strength test using standard installation parameters.
- ☀ Permanent HVAC system must be turned on and set to a minimum of 68° F for a minimum of 72 hours prior to, during and after installation. With maximum environmental temperature not to exceed 100° F.
- ☀ Acclimatize material to installation area for a minimum of 24 hours prior to installation.
- ☀ Use only Ground Zero approved conductive adhesive.
- ☀ Use proper trowel blades as listed above.
- ☀ Inspect material visually prior to installation! Any material installed with visual defects will not be considered legitimate claim as it pertains to labor cost. Make sure that the tiles are all from the same batch numbers as indicated on the cartons.
- ☀ Do not allow heavy equipment on the newly installed floor for a minimum period of 72 hours. Normal foot traffic may be allowed after a period of 24 hours in most environments.



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warranted to moisture emissions as high as 5 lbs per 1000 sq/ft in a 24 hour period (contact Ground Zero prior to install if your testing confirms moisture emissions over our 5 lb limit). Perform standard concrete PH Testing. If the PH is greater than 9, it must be neutralized, contact Ground Zero for recommendations. Testing results and a diagram of testing locations shall be submitted to Ground Zero prior to installation of ESD Flooring If the results exceed the limitations we specify.

2. Upon receipt of rolls, check that colors correspond to those ordered, that quantities are correct and dye lots are consistent. Rolls of material should be stored upright. Insure that all equipment and trades have completed their work and removed their equipment and materials prior to installation.
3. Maintain building temperature, flooring and adhesive at a minimum of 68 degrees F for a Period of 72 hours prior to, during and after installation of Ground Zero PolyStat Flooring. PolyStat ESD Vinyl sheets must be relaxed prior to installation. Remove factory wrappers from rolls, unroll vinyl sheets (these may be smoothly placed on top of each other for faster relaxation). Allow material to flatten for a period of 72 hours in a warm to hot environment prior to installation.
4. Remove all debris, sweep or vacuum entire floor area. Subfloors must be dry, clean and free from dust, paint, oil, grease, curing agents, parting compounds, surface hardeners, sealers solvents, old adhesives and any other extraneous materials. Substrate must be smooth and flat with a maximum variation of 1/8 ' in 10 feet. Cracks and any irregular surfaces must be patched and leveled using a Portland cement underlayment with a liquid latex binder. Gypsum-based underlayment should not be used. Excessive subfloor irregularities may telegraph through the PolyStat ESD Vinyl and may be visible on the surface of the finished installation.
5. Scrape or power grind any cementitious subfloor to remove any excessive ridges or contaminants, fill all voids in concrete (including expansion joints) sweep or vacuum prior to laying.
6. The Architect may have provided a drawing showing the direction in which the material should be laid. In this case lay the sheet as directed. If the Architect has left this to the discretion of the flooring installers, layout your installation as you would for standard non ESD Vinyl paying attention to where seams will fall and avoiding such occurrences as seams in the middle of doorways. If large windows are installed, minimize the effect of the joints by laying towards the window.
7. Trowel and Roller Method of Adhesive Transfer:
 - A. It is essential that the specified trowel be used! If the trowel notches are too large too much adhesive will be applied. This will result in excessive adhesive seepage at the seams and also will cause the Vinyl to "float" and shift. In addition excessive adhesive will make clean up difficult. Excessive adhesive should be immediately cleaned from Vinyl with warm water. Do not use Acetone. If you delay in rolling the Vinyl because of excessive seepage, adhesive will not be properly transferred to the backing of the Vinyl causing both a loss in Conductivity and lowered adhesion. If the notches are too small, too little adhesive will be used resulting in lowered conductivity and/or lowered adhesion. As this adhesive contains carbon trowel wear will be noticeably increased. Worn trowels should be immediately discarded when proper spread rate becomes impaired.

Trowel Size:

Porous concrete; 1/16 X 1/16 U notched

Non-Porous substrates (double drop and use); 1/32 X 1/32 U notched

- B. PolyStat ESD Flooring can be installed by using the double drop method (recommended for non-pours substrates). Spread and trowel adhesive, lay vinyl sheet into wet adhesive and roll (see c), then fold vinyl sheet back and leave until adhesive becomes slightly tacky to the touch. Once proper adhesive tack takes place vinyl sheet should be accurately re-laid, ensuring vinyl does not twist or develop trapped air bubbles. Tack time will very depending on ambient



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humidity conditions in your environment. PolyStat may also be layed into wet adhesive on porous substrates. We recommend bond strength testing to decide on the appropriate method of adhesive usage prior to full scale installation.

- C. It is important that the proper weight roller be used! The floor is rolled to flatten the adhesive ridges left by the trowel and to transfer a uniform amount of adhesive to the backing of the PolyStat Vinyl Sheet Goods. Our C-2000 conductive adhesive will stay wet beneath the installed floor for a extended period of time. Bond and tack strength will increase as adhesive cures. As such PolyStat "bubbles" may be removed for a period of up to 48 hours after flooring install by re-rolling and / or weighting bubbles with cinder block weights.

Roller Weight: 100 to 150 Pound

8. Heat Welding: Allow floor to cure for a minimum of 48 hours prior to heat welding seams. Heat weld in accordance with standard high grade composition vinyl flooring practices.

Maintenance / Post Install Cleanup: Post install cleaning can be accomplished with standard rotary buffing equipment, semi abrasive pad and water. HOWEVER water nor buffing should not be utilized for a period of 72 hours after installing floor. Maintenance is dependant on the nature and intensity of traffic and the specific requirements of the end user. To keep cost low, without compromising standards of hygiene and cleanliness, Ground Zero recommends that a maintenance regime be specifically tailored to your needs. Polishes or floor finishes that inhibit the floors electrical performance must not be used. Remove abrasives by sweeping on a regular basis. Damp mop with warm water and approved Ground Zero Cleaning solution as needed. A clean floor insures consistent electrical performance. PolyStat ESD Vinyl is initially supplied with a non-glare finish. If your needs require a high shine, simply burnish the material with a high speed floor buffing machine. Contact Ground Zero for further recommendations.



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