



Sheet Vinyl Installation

TITANIUM ESD SHEET VINYL



PRODUCT OVERVIEW: Titanium ESD Flooring is a product designed with a specific range of electrical conductivity and is used in environments where static control is desirable. The uncontrolled discharge of static electricity can wreak havoc on some electronic components and is detrimental to static sensitive assemblies and powder formulations (such as the case in pharmaceutical and munitions manufacturing). Titanium is provided in a sheet vinyl and in a tile form.

Titanium is manufactured with a hard, wear resistant, semi-gloss, anti-slip top surface securely bonded to a black, full surface static conductive backing. This combination provides unparalleled wear resistance with a > 20 year life expectancy and a Lifetime Warranty on Electrical Conductivity.

Handling and Storage:

- 1) Rolls are to be shipped standing and protected against damage from shipping.
- 2) United's ESD Flooring Materials and its associated adhesive must be site conditioned at room temperature for 48 hours prior to, during and after the installation. Room temperature must be maintained between 65 and 85 degrees F. with HVAC system operating and functional. Said area shall be maintained at this temperature for a minimum of 30 days after installation. Relative ambient humidity shall be maintained between 40 and 60%. Overhead lighting shall be functional and the job site shall be well lit during inspection and installation of flooring.
- 3) In areas that are exposed to intense or direct sunlight, the product must be protected during the conditioning, installation and adhesive curing phases by covering light source.
- 4) The highest quality of materials and workmanship is employed in the manufacture of United ESD Flooring and careful inspection is made before shipment. However, a quality installation is the responsibility of the installers. It is the installer's responsibility to verify the accuracy of the order and to insure the materials are checked for consistent dye lots, damage, defects and satisfactory color and pattern matches. An authorized United Static Control Representative must be contacted and notified of any defects before installation proceeds.
- 5) United cannot accept responsibility for any loss or damage that may result from the use of this information due to processing or working conditions and / or workmanship outside of our control. Users are advised to confirm the suitability of this product by performing their own test.



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General Subfloor Preparation:

1) All Subfloors must be clean, smooth, flat and dry. The surface must be free of all dust, loose particles, solvents, paint, grease, oil, waxes, alkali, salts, sealing or curing compounds, old adhesive and any other foreign material which could affect the installation.

Note: Do not use oil based sweeping compounds. Fill all depressions, cracks and other surface irregularities with a high quality Portland based underlayment patching compound.

Note: Contamination on the substrate may cause damage to resilient flooring material. Permanent and non-permanent markers, pins, crayons, paint, etc. must not be used to write on the back of the flooring material or substrate as they may bleed through and stain the flooring material. If these contaminants are present on the substrate they must be mechanically removed prior to installation of the flooring material.

Note: Do not use liquid solvents or adhesive removers. **Note:** United does not recommend using liquid adhesives over existing resilient floors. When using liquid adhesives all existing flooring and old adhesives must be removed prior to installing the new flooring material. Remove old existing adhesives mechanically - do not use chemical adhesive removers or solvents.

Covering existing well bonded factory flooring (including flooring that is asbestos laden): Titanium flooring may be used in conjunction with URAS peel and Stick "Dry" Adhesive. [Please click HERE to review this process.](#)

Caution: Some older resilient flooring products and adhesives contain asbestos fibers and a special handling of this material is required.

2) **Concrete Subfloors** must be constructed as recommended by the American Concrete Institute's ACI 302.2 "Guide for Concrete Slabs that receive moisture-sensitive flooring materials" and prepared to receive resilient flooring according to the ASTM F 710 "Standard practice for preparing concrete floors to receive resilient flooring." Do not install sheet vinyl over expansion joints, rather, United recommends the use of expansion joint cover if at all possible.

All concrete subfloors must be tested for moisture, pH and proper adhesive bond. Moisture test shall be conducted in accordance with ASTM F 1869 "Standard method for measuring moisture vapor emission rate of concrete subfloor using Anhydrous Calcium Chloride." Three tests should be conducted for areas up to 1,000 square feet of flooring and one additional test should be conducted for each additional 1,000 square feet of flooring.

Results must not exceed 3 pounds per 1,000 square feet over a 24 hour period when testing to ASTM F 1869. If the test results exceed the limitations the installation must not precede until the problem has been corrected. A pH test for Alkalinity must be conducted. Results should range between 7 and 9. If the test results are not within this acceptable range the installation must not proceed until the problem is corrected.

3) **Wood Subfloors** must have a minimum of 18 inches of cross ventilated space between the bottom of the joist and the ground. Exposed earth crawl spaces should be sealed with a polyethylene moisture barrier. Subfloors should meet local and national building codes. Trade Associations such as the APA - "The Engineered Wood Association" offer structural guidelines for meeting various code requirements. Single wood tongue and groove subfloors should be covered with ¼" or ½" APA approved underlayment plywood. Use ¼" thick underlayment panels for boards with a face width of 3" or less. For boards wider than 3" face width use ½" underlayment panels.



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Countersink nail heads and fill depressions, joints, cracks, gouges and shipped edges with a high quality Portland based patching compound. **Note:** Do not install over OSB, particle board, chipboard, lauan or composite type underlayments.

4) Terrazzo and Ceramic floor surface must be thoroughly sanded to remove all glazes and waxes. Remove or replace all loose tiles and clean grout lines. Use a Portland based leveling compound to fill all grout lines and other depressions.

5) Steel Floor surfaces must be mechanically abraded to assist with the adhesive bond. Use URAS peel and stick dry adhesive for this process.

6) Concrete floor equipped with a radiant heating system: Turn the heat down to 65 degrees F for at least 48 hours before installation. Heat may be gradually returned to operating temperature 48 hours after installation. Temperature should not exceed 85 degrees F.

Note: An adhesive bond test should be performed using the actual flooring material and adhesive that will be used for the project. The test areas should be a minimum of 35" x 36" and then evaluated for acceptable bond strength to the concrete.

INSTALLATION OF TITANIUM SHEETS

1) Apply ground foil: [See how to ground an esd floor for more information.](#)

ELECTRICAL GROUNDING OVERVIEW:

All ESD Flooring must be grounded to dissipate the electrostatic charge to ground. The flooring may be easily attached to AC Electrical ground via use of electrical outlets located close to the flooring or via using metal columns located in the building. 2 ground points should be used for flooring areas less than 1,000 square feet. An additional ground point should be used every

2,500 square feet thereafter. Contact United Technical Support with questions at 719 676 3928 (extension 7000).

2) Layout: 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 vinyl towards the window.

3) Rough Cut Sheet Vinyl:

a) Install sheets in sequential order following roll numbers if presented on the labels of the flooring material.

b) Reverse sheets

c) Cut sheets to length allowing approximately 3" excess for trimming.

d) Cut the first piece to fit by freehand knife, direct scribing or pattern scribe method.

e) Remove 1/2" off the factory seam using an edge trimmer or straight edge and knife.

f) Position all remaining sheets so that the top sheets overlap the previous sheet by 1/2". Trim 1/2" off of the opposite seam edge using an edge trimmer or a straight edge and a knife. **Note:** seams may be double cut in lieu of aforementioned method. Insure the loose lay floor is flat, bubble free and with tight seams before proceeding to the next step.

4) Fold back the sheets approximately 1/2 of the length or width of the material.

5) Apply adhesive to area. The recommended adhesive for our sheet vinyl is [UZIN KE 2000 SL](#). This adhesives are VOC free and static conductive. **Note:** Avoid allowing the adhesive to contact the top surface of the flooring. Remove excessive adhesive immediately with a warm wet rag. Allowing adhesives to cure will make clean up difficult. Follow label



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instructions or data sheets for proper use of adhesive. **Note:** Do NOT spread an area that is too large to realistically work and do not use Acetone to clean adhesive residues.

ADHESIVE USAGE OVERVIEW:

Note: see instructions on pails or data sheets for full details. Make your life easier! **DO NOT** let the adhesive dry on the top surface of this flooring.

Dense or semi-porous substrates (medium bond strength): Allow the spread adhesive to slightly dry until the surface becomes tacky to the touch (slight transfer to the fingertip). Drying time will vary according to temperature, substrate porosity and other environmental variables.

Dense or semi-porous substrates (high bond strength): Double Drop Method - Spread and trowel adhesive, lay vinyl sheet into wet adhesive and roll with 100 pound vinyl roller. Immediately 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.

Porous Substrates: When installing over porous substrates install the flooring into the adhesive while semi wet (slight to moderate transfer to the fingertip).

Install flooring immediately after the required open time has been achieved and roll floor in all directions using a 100 pound vinyl flooring roller. NOT following the recommended methods for installation will sacrifice important bonding properties. Typical Trowel size: 1/16" x 1x16" x 1/16" U or Square notched. Typical Coverage: 150 square feet per gallon.

6) Heat weld seams to industry accepted standards using United SCP Heat weld rod at least 24 hours after installation.

7) Traffic shall not be allowed on the newly installed floor for at least 24 hours after finalizing install.

Initial Move In: Protect your esd flooring investment during the initial loading phase. Cover the newly installed esd flooring with Masonite or thick cardboard sheets prior to rolling over the new substrate with heavily loaded forklifts, man lifts etc. Remove nuts, bolts, rocks, nails etc. from the wheels of heavy equipment prior to rolling over the protective coverings.

Initial Maintenance should not be performed for a minimum of 72 hours after the installation is complete to allow the adhesive to fully cure. Careful installation will avoid the transfer of conductive adhesive to the top of the flooring. Should your installation have adhesive on the top surface of the flooring this may be removed with a soft white cloth or sponge dipped in a mixture of hot water and ElectraClean diluted to a ratio of 8 ounces of ElectraClean to a gallon of water. The adhesives remove easily prior to drying but are much harder to remove if left unattended and allowed to cure overnight. Insure that the area is dry once the clean-up is completed. Dry dust mop new flooring and damp mop as needed with warm clean water and ElectraClean.

Ongoing Maintenance: Refer to United SCP's Titanium Maintenance Instructions for further details.

Tech support is available 24/7 for our installers and customers by dialing 719 676 3928 and selecting option 8. Updates for the above directions may be available on our web sites.

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