

## **TECHNICAL DATA**

Nominal Dimensions:

**12" x 12" x 1/8"**

**12" x 24" x 1/8"**

**24" x 24" x 1/8"**

**36" x 36" x 1/8"**

Finish:

**Smooth**

ASTM F1700 – Solid Vinyl Tile:

**Class I, Type A**

ASTM E648 (NFPA 253) - Critical Radiant Flux:

**Class I, > 0.45 W/cm<sup>2</sup>**

ASTM E662 (NFPA 258) - Smoke Density:

**Passes < 450**

ASTM F970 - Static Load Limit:

**Passes, 250 PSI**

ASTM F970 (Modified) - Max Weight:

**2500 PSI**

ASTM F925 – Chemical Resistance:

**Passes (chart available)**

ASTM D2047 – Slip Resistance:

**> 0.6**

ASTM F150 - Electrical Resistance -

0.25 MΩ - 1 MΩ (Conductive):

**2.5 x 10<sup>4</sup> - 1 x 10<sup>6</sup>**

1 MΩ - 1000 MΩ (Dissipative):

**1 x 10<sup>6</sup> - 10<sup>9</sup>**

ANSI/ESD S20.20:

**Meets Requirements**

ANSI/ESD STM7.1 - Electrical Resistance:

**Meets Requirements**

ANSI/ESD STM97.1 – Electrical Resistance (w/person):

**Meets Requirements**

ANSI/ESD STM97.2 –

Voltage Measurement w/person (Conductive):

**< 10 V with ESD Shoes**

Voltage Measurement w/person (Dissipative):

**< 20 V with ESD Shoes**

AATCC-134 - Static Generation (Conductive):

**< 5v with ESD Shoes**

AATCC-134 - Static Generation (Dissipative):

**<20v with ESD Shoes**

Storage, Acclimation & Service Temperature:

**65° - 85° F**

Acclimation Time:

**48 Hours in Service Conditions**

Technical Support: [solutions@rhctechical.com](mailto:solutions@rhctechical.com)

## **SUSTAINABILITY**

**FloorScore®** Certified

**HPD** and **EPD** available

Qualifies for **LEED v2009 IEQ Credit 4.1**

## APPROVED ADHESIVES

**Excelsior ASD-800 Acrylic Wet-Set Adhesive** - An acrylic wet set adhesive specifically designed for the permanent installation of ESD vinyl and rubber flooring materials over porous substrates in indoor applications.

**Excelsior USD-810 Urethane Wet-Set Adhesive** - A two-part, solvent free urethane adhesive used for the permanent installation of ESD vinyl and rubber flooring products in heavy use areas over porous and non-porous substrate in indoor applications.

## REQUIRED FOR INSTALLTION

To properly ground ESD flooring installations, all ESD Vinyl orders must include 1" x 0.004" Copper Grounding Straps. Refer to Section 6 below and the grounding diagrams on page 8 for additional information.

### Adhesive Coverage Rates, Moisture Limits, Traffic, Maintenance & Heat Weld Limits

Coverage Rates (per gallon)			Moisture Limits	Traffic & Maintenance Limits			Heat Weld
Adhesive	Porous	Non-Porous	RH / MVER Limits	Foot Traffic	Heavy Foot Traffic	Maintenance	Heat Weld
ASD-800	160 sq. ft.	N/A	90% / 6 lbs.	24 Hours	48 Hours	72 Hours	24 Hours
	<b>Brushed &amp; Rough Porous</b>	<b>Smooth Porous &amp; Non-Porous</b>					
USD-810	135 sq. ft.	150 sq. ft.	90% / 6 lbs.	8-12 Hours	24-48 Hours	48 Hours	24 Hours

## SUBSTRATE, INSTALLATION & MAINTENANCE INFORMATION

### 1. PRODUCT LIMITATIONS

- Prior to acceptance of this document refer to [www.flexcofloors.com](http://www.flexcofloors.com) to confirm the most current revision.
- Do not install materials over LVT, cushioned vinyl, hardwood flooring, cork, rubber, or asphaltic materials.
- Do not install flooring materials in outdoor areas, residences, in or around commercial kitchens or areas that may be exposed to animal or vegetable fats and oils, grease and petroleum-based hydrocarbons.
- Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes.
- Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment.
- May be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals.

- Ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

### 2. PRE-INSTALLATION CHECKLIST

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove any plastic and strapping from product after delivery.
- Inspect all material for proper type, color and matching lot numbers if appropriate.
- Ensure that all adhesives intended for installation are approved for use with flooring material.
- Ensure installation area and material storage temperatures are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and after installation.

- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been performed, read and/or understood by all interested parties.
- Do not proceed with installation until all conditions have been met.

### 3. STORAGE, ACCLIMATION & SERVICE ENVIRONMENT

- Ensure material is adequately stored at temperatures between 65° F (19° C) and 85° F (30° C) prior to installation.
- This product is designed, manufactured and tested to perform at constant temperatures, not fluctuating more than 4° from normal selected service temperatures from the allowable 65° F (19° C) - 85° F (30° C) range.
- During acclimation, the material must be in the installation area with the HVAC system functional and operating at desired service temperatures for a period of 48 hours prior to installation, during the installation and for the service life of the installation afterwards.
- It is recommended maintaining an ambient relative humidity between 40% and 60% for a period of 48 hours prior to installation, during the installation and for the service life of the installation afterwards.
- If the material will be installed outside of the above acclimation and service temperature ranges contact Technical Services for more detailed installation recommendations.
- Do not proceed with installation until all conditions have been met.

### 4. SUBSTRATE PREPARATION

*In regards to substrate preparation when mechanical sanding, grinding, shot blasting and vacuuming always follow the Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesives", and all applicable local, state, federal and OSHA requirements in regards to Asbestos and Silica containment regulations.*

All substrates must be prepared according to ASTM F710 or ASTM F1482, as well as applicable ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible

alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material or foreign matter.

It is recommended that all substrates have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible cementitious patch (such as the Excelsior CP-300) or self-leveling underlayment (such as the Excelsior SU-310) installed to flatten the installation area.

All substrates must have any and all existing adhesives, materials, contaminants or bond-breakers mechanically removed via scraping, sanding, grinding or buffing with a 25 grit DiamoBrush Prep Plus tool prior to adhesive installation. In extreme situations, shot-blasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a HEPA approved vacuum and flat vacuum attachment to remove all surface dust. **Sweeping without vacuuming will not be acceptable.**

Do not use solvent/citrus based adhesive removers prior to installation.

### CONCRETE SUBSTRATES

All concrete must have a minimum compressive strength of 3500 PSI and be prepared in accordance with ASTM F710. When flooring is being installed directly over concrete, concrete surfaces that have an ICRI Concrete Surface Profile (CSP) over 4 should be smoothed with a self-leveling underlayment or a patch to prevent imperfections from telegraphing through flooring materials.

All substrates must be tested per ASTM F3191 to confirm porosity. Use a pipette or equivalent to conduct three tests by placing a .05 mL (1/4" wide) droplet of clean, potable water onto the surface. If the substrate absorbs water within 60 seconds, the substrate is considered porous. Conduct 3 tests for the first 2000 sq. ft. and one for each additional 3000 sq. ft., at least one per room. All other substrates that do not meet this requirement are considered non-porous. Ensure that all non-porous substrates are not contaminated with any aforementioned contaminants.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869, using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the prescribed limits, a moisture mitigation product, such as Excelsior MM-100 Moisture Mitigation, must be installed prior to proceeding with installation.

### RESINOUS SUBSTRATES

When installing directly over a resinous products, such as the Excelsior MM-100 or an epoxy coating, ensure that coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminates. Resinous substrates are considered non-porous – make sure adhesive can be used over non-porous substrates and follow all installation instructions and flash times for non-porous substrates.

### GYPSUM BASED SUBSTRATES

Gypsum-based substrates must have a minimum compressive strength of 3500 PSI. Gypsum substrates that do not meet this requirement may have one coat of the Excelsior MM-100 installed to improve the top layer bonding strength of the substrate. Substrate must be structurally sound and firmly bonded to the subfloor below. Any cracked or fractured areas must be removed and repaired with a compatible patch or repair product. Follow instructions for installation over a gypsum substrate. New or existing gypsum substrates may require the substrate has a primer or sealer applied just prior to finished floor being installed. Follow all manufacturers' recommendations regarding preparation for resilient flooring installation.

### WOOD SUBSTRATES

Wood substrates must be prepared in accordance with ASTM F1482. Prior to installation, moisture retardant sheeting with a maximum rating of 1.0 perm must be installed beneath the wood subfloor, overlapped at least 8". Other wood subfloor materials, such as OSB, lauan, particleboard, chipboard or cementitious tile backer boards, are not acceptable subfloors. Avoid preservative treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring.

This also includes plywood sheathing designed for long lasting exposure to exterior climates. These also could contain resins/waxes that could stain or be considered bond breakers. Always refer to those manufactures recommendations. If the subfloor materials mentioned above are already installed or the wood substrate is old and not repairable, the use of multi-ply Underlayment Grade plywood at a minimum of ¼" thick with a fully sanded face will be required. Wood subfloor deflection, movement, or instability will cause the flooring installations to release, buckle or become distorted. As such, do not use plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Only install over a properly constructed sleeper system (wood subfloor system over concrete, consult the technical department for further details) and do not install directly over Sturd-I-Floor panels.

### METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground and cleaned of any residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water or moisture and/or high humidity, an anti-corrosive coating must be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install stair treads within 12 hours after sanding/grinding to prevent re-oxidation. Any deflection in the metal floor can cause a bond failure between the adhesive and the metal substrate. Be sure to follow installation procedures and trowel sizes for non-porous substrates.

***Installing over Checker plate or Diamond plate is not recommended.***

### EXISTING FLOORING SUBSTRATES

Existing rubber flooring and LVT, as well as the adhesives used to install them, must be completely removed from the substrate prior to installation. Existing VCT, VAT, quartz tile, solid vinyl tile, sheet goods, hardwood flooring, asphaltic materials and existing adhesives or adhesive residue must have a compatible cementitious patch or underlayment installed over the substrate prior to installation. Existing hardwood flooring requires suitable underlayment grade plywood be installed over the substrate.

New flooring may be installed over existing stone flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure existing flooring is a single layer of material and that all materials are clean, dry, sound, solid, well adhered and free of site-applied finishes, waxes and/or contaminants. Any and all loose tiles must be removed and repaired or replaced. All grout lines and irregularities must be filled and troweled flush with a suitable primer and patch such as the Excelsior NP-230 and CP-300 to prevent telegraphing of the existing floor. All existing flooring substrates that are outside of flatness tolerances that cannot be repaired with the Excelsior CP-300 patch should be leveled with the SU-310 self-leveling underlayment to achieve a smooth, flat substrate.

All existing flooring substrates must have any and all site-applied finishes and/or waxes completely removed prior to flooring installation in order to ensure a proper adhesive bond. For mechanical removal, use a low-speed buffer and 40-60 grit sandpaper. Properly prepared substrates should not have any remaining gloss or sheen. For chemical removal, ensure chemical treatments will not disrupt adhesion of the existing flooring to the substrate. Be sure to rinse the existing flooring adequately with clean, potable water to remove any and all chemicals from the surface of material.

Do not install flooring until any moisture on, between or below existing flooring has completely dried.

Ensure all dust, dirt and debris are removed prior to flooring installation.

### RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is turned off 48 hours prior to installation and remains off during the entire installation. The radiant heat may be turned on 48 hours after installation and the normal operating temperature should be increased gradually over the course of 24 hours.

Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

### 5. CRACKS, JOINTS & VOIDS

All cracks, joints and voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor cracks and voids 3/64" or less may be repaired with a suitable cementitious patch. Due to the dynamic nature of concrete slabs, manufacturer cannot warranty installations to cover expansion joints, cracks or other voids such as control cuts saw joints and moving cracks or voids. Do not install flooring directly over any expansion joints as all expansion joints should be honored and have a suitable expansion joint covering system installed to allow expansion joint to move as it was designed. In areas where random cracks are 3/64" or greater it is hard to tell if the slab will continue to move or has finished moving.

*Consult a structural engineer if there are any questions or concerns with a crack or joint, especially those that may affect structural integrity such as expansion joints or excessive random cracking in areas that are not designed to move.*

### 6. COPPER STRAP INSTALLATION

In order to properly dissipate static electricity, the flooring system must be grounded with a copper grounding strap. Prior to installation, consult project electrician or electrical engineer regarding the placement of copper straps in order to synchronize copper strip placement with electrical grounding system location. Copper grounding straps must be placed every 2000 sq. ft., at least one per room. Prior to installing flooring materials, install copper straps directly into fresh adhesive and trowel adhesive over strap to fully embed strap in adhesive. Copper strap must be at least 18" in length, with at least 9" embedded into adhesive. The remaining copper material can be run up the wall for installation into electrical grounding system following flooring installation.

All cracks, joints and voids must be bridged with a copper strap. Center copper strap over crack, joint or void and embed copper strap inside adhesive to anchor into place.

Ensure copper strap will make contact with one tile on each side of the crack, joint and void, at least one strap per room.

***All electrical grounding systems should be connected and tested by a licensed and qualified electrician or electrical engineer. Ensure grounding strap installation is consistent with specifications and electrical grounding guidelines or diagrams. See Grounding Diagrams & Details on last page for more information.***

### 7. FLOORING INSTALLATION

Ensure substrate is suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Ensure adhesive is approved for use with flooring material and that proper trowel type and size is used, as manufacturer is not responsible for any and all adhesion issues related to improper adhesive selection or usage.

Prior to installation, confirm material installation pattern and direction per design specifications or work order. Inspect all tiles before installing or during installation to verify that there are no visible defects, damages or excessive shading variations. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff.

Ensure substrate is clean, dry, flat and sound prior to installation. Ensure the room is square using the 3-4-5 squaring rule or similar method to ensure acceptable installation. Dry-lay several pieces of material to determine ideal room layout. Cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. Ensure material around perimeter is 1/8" from wall or less, depending on depth of wall base or trim.

Use a nail-down guide or equivalent along starting row to expedite wet-set installation. Apply adhesive according to instructions for specific product in use and observe adhesive flash times, if applicable. Ensure all adhesive working times are observed and followed. Be sure to follow instructions based on substrate porosity (porous or non-porous). Use chart below for reference.

Install material into adhesive and observe directional arrows on back of tile to ensure arrows are installed in the same direction. Use a pyramid layout when installing tiles to eliminate run-off.

When installing into adhesive using a wet-set method, avoid walking or working on material until adhesive has cured for light foot traffic. Working on material that is installed into wet adhesive could cause adhesive to displace.

When working off of material is not possible, use a kneeling board or equivalent to disperse weight evenly and prevent adhesive displacement. Pay close attention to working time to avoid adhesion issues. This may require installing material in smaller sections. Replace trowels at recommended intervals to maintain proper trowel ridge and spread rate.

Periodically lift material to ensure proper adhesive transfer and ensure adhesive has not surpassed the open time – adhesive should cover 90% of tile. Roll material with a 3 section, 100 lb. roller within 15 minutes after installation of tile section, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller. Do not wait until completing the entire installation before rolling as the adhesive may have surpassed the open time and cured. Roll and cross roll a second time approximately 30 minutes after the initial rolling

Visually inspect installation to ensure that material has not shifted and that adhesive has not been squeezed out of joints or compressed onto surface. Clean excessive adhesive or adhesive residue from the surface of the material per adhesive recommendations. Do not apply abrasive or solvent based cleaners directly to flooring material.

### 8. FLASH COVE INSTALLATION

Prior to creating and installing a flash cove, measure desired flash cove height and install appropriate Flexco Cove Cap at desired height. Using the Excelsior C-630 Contact Adhesive or 1" Excelsior TP-620 Pressure Sensitive Tape, install the appropriate Flexco Cove Stick Filler directly to wall-floor joint to provide the desired radius for the flash cove.

A minimum of 6" of material must cover up the wall and a minimum of 6" of material must be installed on the floor, depending on flooring specification or work detail. While bending material to desired radius, measure and cut flash cove to meet cove cap, ensuring there is full contact with the cove stick. If flash cove does not make full contact with cove stick, cove and/or material could become damaged over time. Cut all difficult fill pieces prior to spreading adhesive. Use the Butterfly Method for creating outside corners.

Using the Excelsior C-630 Contact Adhesive or 4" – 9.5" Excelsior TP-620 Pressure Sensitive Tape, install the material directly to the cove stick and the wall and roll using a hand roller.

### 9. HEAT WELD INSTALLATION

Ensure that adhesive has cured for recommended period of time prior to beginning heat-welding. Use chart below for reference.

Prior to cutting heat-welding groove, ensure gap between seams is free of adhesive, dust, dirt, debris and contaminates.

When using electric grooving machine blade to cut groove depth at 66% of the total thickness of the tile (~1/16" deep for 2.5mm material). When using a hand grooving or electric grooving machine, test groove depth on scrap material to ensure proper depth is achieved. While grooving, ensure removal is split between each side of the roll, 50% per side. Hand-grooving may be required near walls, protrusion and other obstacles. Remove any and all loose pieces of flooring as well as any other debris from groove prior to welding. Using a hot air welding gun, insert the Flexco Vinyl Welding Rod through the 4mm welding tip and into the center of the routed groove or seam. Prior to welding, test weld on scrap material to ensure temperature settings and welding speeds are correct and achieve a successful bond.

Do not allow foot traffic or trim welding bead until welding bead has completely cooled. To trim seam, use a clean, sharp quarter-moon spatula knife and a clean trim plate or a Crain Mozart trimmer. After one hour, trim seam again with a quarter-moon spatula knife to create a smooth, level seam surface. If seam imperfections are observed, use a hot air gun to smooth out imperfections.

### 10. INITIAL MAINTENANCE

Ensure that adhesive has cured for recommended period of time prior to conducting initial maintenance. Remove any protective coverings prior to cleaning. Use dust mop and/or vacuum flooring to remove any dirt, dust or debris.

Mix 2-4 ounces of Excelsior NC-900 All Purpose Cleaner per gallon of clean, potable water. Use a clean mop to apply cleaning solution to floor and let stand for 5-10 minutes.

If using a low-speed floor buffer (180 – 360 RPM), buff floor while wet using a 22 gauge soft bristled scrubbing brush or a 3M 4100 White Super Polish Pad. If flooring is heavily soiled, a 3M 5100 Red Cleaning Pad may be required.

If using an auto-scrubber, buff floor while wet using a 22 gauge soft bristled scrubbing brush or a 3M 5100 Red Cleaning Pad. If flooring is heavily soiled, allow cleaner to remain on surface for an additional 5-10 minutes before scrubbing and removing.

Use an auto-scrubber, wet vacuum or clean mop to remove any and all excess cleaning solution. Rinse area with clean, cool water and allow floor to dry entirely.

Do not use detergents, abrasive cleaners or "mop and shine" type products, as they will dull the finish and sheen of the flooring material. Do not use vacuums that have a beater bar or electric brooms with hard plastic bottoms or no padding, as this may cause discoloration, scratching and loss of sheen.

***For further information regarding daily or routine maintenance, please consult the product care & maintenance document or the associated product technical data sheet.***

## **11. FLOORING PROTECTION**

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to prevent flooring damage, especially by other trades. Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements. When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters must be made of a soft material and must have a contact point of at least 1" in width to limit indentation and flooring damage. All rolling chairs or seating must have a resilient flooring chair pad installed over the finished floor to protect floor covering. All fixed furniture legs must have permanent felt or soft vinyl floor protectors installed on all contact points and to reduce indentation.

Floor protectors must have a flat contact point of at least 1 sq. in. or 1 in. diameter and must cover the entire bottom surface of the furniture leg.

Ensure all furniture castors and chair legs are clean and free of any and all dirt and debris. Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors. Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Ensure mats are manufactured with non-staining backs to prevent discoloration.

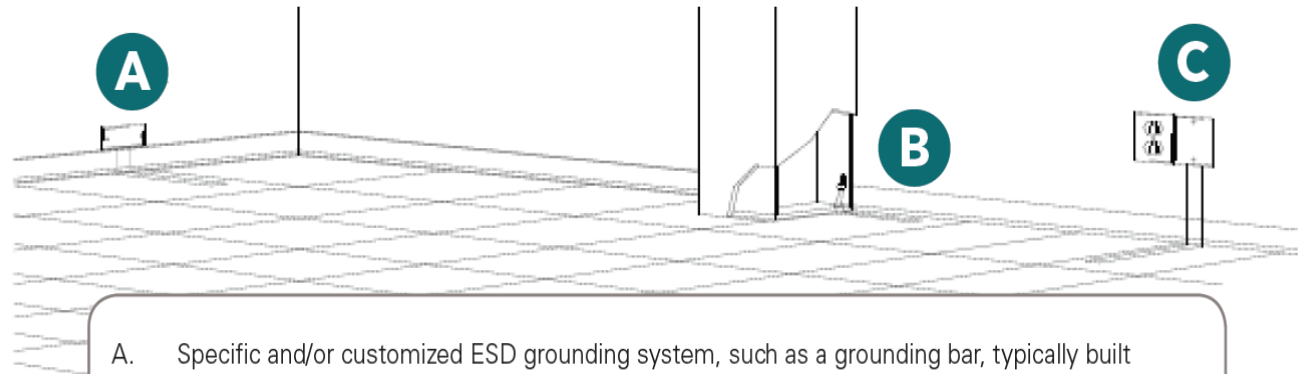
## **12. WARRANTY**

Flexco provides a Limited 10 Year Warranty for all ESD Flooring installations that are installed with Excelsior ESD Adhesives and properly grounded with Copper Grounding Straps provided by Flexco. For additional information, see associated warranty documents.

### **FOR PROFESSIONAL USE ONLY**

**PLEASE CONSULT ALL ASSOCIATED INSTALLATION INSTRUCTIONS and TECHNICAL DATA, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS, AND WARRANTY INFORMATION PRIOR TO INSTALLATION.**

## Acceptable ESD Grounding Systems & Methods



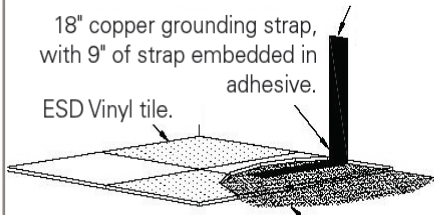
- Specific and/or customized ESD grounding system, such as a grounding bar, typically built into facility. Contact electrical or facility representative for detail.
- Steel building column or grounded building framing system. Grounding lug fastened to steel framing per NEC requirements (see Method B Detail below).
- Standard copper connection, typically routed to an electrical system ground connection from a receptacle box (see Method C Detail below).

### Copper Grounding Strap Installation

Connect remaining copper grounding strap to acceptable grounding system.

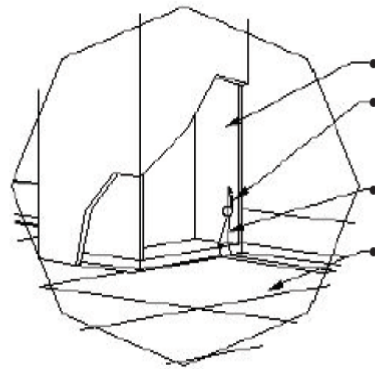
18" copper grounding strap, with 9" of strap embedded in adhesive.

ESD Vinyl tile.



ASD-800 or USD-810, installed above and below grounding strap.

### Method B Detail



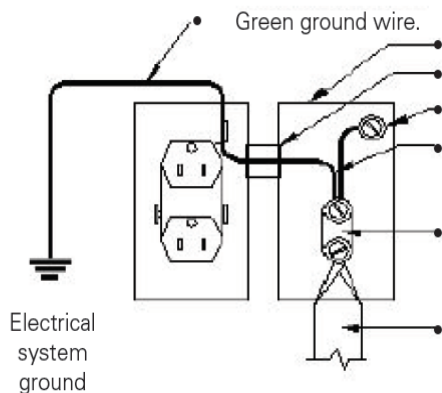
Steel building frame

Electrical lug, mechanically fastened to steel frame for connection to copper grounding strap.

18" copper grounding strap, with 9" of strap embedded in adhesive.

ESD Vinyl tile.

### Method C Detail



Electrical system ground

Green ground wire.

Receptacle box.

Conduit coupling.

Receptacle box grounding connection.

#12 awg copper wire, routed from receptacle box grounding connection, to electrical lug and then to electrical system ground.

Electrical lug, mechanically fastened to receptacle box for connection to copper grounding strap.

18" copper grounding strap.