Excel Installation

Upon Product Delivery

1. Verify packing slip matches with product and order and inspect delivered product thoroughly.
2. Store rolls vertically, not laying down.
3. Store product and adhesive in clean, dry environment with temperatures between 65° and 80°F.
4. The material must be acclimated to the environment where it will be laid for at least 48 hours before installation.
5. Read product and subfloor preparation and instructions carefully and completely before beginning any installations.

Preparation

Product

Excel vinyl rolls should be protected from excessive moisture and other damage prior to application, during application and while curing.

Subfloor Surface

The **subfloor general conditions** should be as follows:

- Must be free of wax, oil, grease, sealer, curing compound, paint, varnish, old adhesive, or other contaminants. All contaminates must be removed by mechanical abatement since chemical abatement will lead to additional contaminates.
- Moisture vapor emission must not exceed the maximum allowable tolerance of the adhesive being used when tested in accordance with ASTM F1869, anhydrous calcium chloride test
- Must be properly prepared to be a satisfactory bonding surface for adhesion of subfloor to Excel
- Must be firm, structurally sound, dry, clean, smooth, and level
- All cracks must be filled with approved Portland-based patching compound

Concrete Subfloors

The **concrete subfloor conditions** should follow the general conditions above, as well as:

- Must have cured for a minimum of 28 days
- Must have a permanent effective moisture barrier membrane installed that is in accordance with ASTM E1745 and E1643
- Must be dry, sufficiently porous, and clean
- Must not be loose, sandy, and scaly or have a white powdery surface
- Must have a temperature of at least 65°F prior, during, and 48 hours after installation

Wood Subfloors

The **wood subfloor conditions** should follow the general conditions above, as well as:

- Must be in accordance with ASTM F1482
- Must be a double layer construction with a minimum thickness of 1” consisting of plywood subfloor and plywood underlayment
- A minimum of 18” of cross-ventilated air space beneath wood subfloor

Installation Procedures

Important Notes

- Make sport court markings with polyurethane paint
- The excess adhesive shall be removed as work progresses and it is still wet, using a cloth with neutral detergent or alcohol depending on adhesive.
- Avoid making concentrated pressure on the floor with hands elbows or knees, during the installation to prevent the formation of permanent indents; do not walk on the flooring for at least 24 hours after the installation.
- Always protect the floor after the installation with protective sheeting to avoid unnecessary damage when installing additional equipment.

Instructions for Installing Rolls

1. Measure the room and mark the centerlines, planning the laying in a way to reduce cuts and scraps.
2. Loose lay the rolls (without adhesive) following the marked lines. Rolls must be laid with 1.8 in (3.0 cm) overlap along the adjoining edges. Check the uniformity of color and the absence of defects.
3. The loose laying is very important to check the color uniformity and the absence of defects of the flooring. All claims will be accepted only if the flooring is not yet permanently bonded.
4. Perform the seam cutting along the sides and the heads of the rolls (the use of scribers and straight and hook bladed knives is advised to get better results).
5. Fold back the sheet to expose substrate. Spread the adhesive using a notched trowel. Once the adhesive is ready to accept the flooring, roll the sheet back into place, taking care not to twist the roll or to trap air bubbles, which will eventually have to be expelled through massaging.
6. Repeat the operation on the other half of the roll.
7. After the laying, the use of a floor roller is recommended to ensure a perfect contact with the substrate.
8. In case adhesive with long work time is used, apply weights along the joints (bricks or sand bags).

PLAE Installation Instructions for Heat Weld

These instructions supersede any verbal or written instructions from PLAE representatives, and must be followed in order for the warranty to be in effect.

817 West Peachtree St, Suite 910 • Atlanta, GA 30308
t 866.599.8274 f 678.880.8557 • plaeusa.com

General and Delivery

- The Product is intended for installations in interior locations only.
- The Product must be installed by an installer with a minimum of five years of proven experience in performing work similar to that required for the Product. Acceptable certifications include The International Standards and Training Alliance (INSTALL), The International Certified Floorcovering Installers Association (CFI), and Flooring American University. Without specific prior experience with this specialized product, a PLAE expert may be needed on site to consult on the installation. Please inquire for more information.
- Order materials in compliance with product supplier's ordering and lead time requirements, in order to take delivery at least 48 hours in advance of installation (to allow materials to acclimate to job site conditions).
- Accept delivery of materials only if they are in unopened, undamaged packaging that bears the name and brand of the manufacturer or supplier, project identification, and shipping and handling instructions.

Storage

- Store material –floor covering, welding rods, adhesive, and maintenance products if ordered – in original packaging in areas that are enclosed and weather tight with the permanent HVAC system set at a temperature between 64°F and 80°F for a minimum of 48 hours prior to commencement of installation.
- At least 24 hours before installation, take the packaging off the floor covering and unroll to allow material to acclimatize before installation.
- **If material is flattened or distorted during storage or transporting, do not attempt to install it.**

Materials and Accessories Required

Consult the appropriate Material Safety Data Sheets (MSDS) for proper handling of accessories.

- ***Flooring:*** Excel

- ***Heat welding rods:*** Rods must be thermally (heat) welded. For heat welding, use matching welding rods that are 4.0mm in diameter. One welding rod is approximately 196 lineal feet. Prior to installing, check heat welding tools to be sure grooving and welding tools are appropriate for 4.0mm welding rods.

- ***Tools:*** 3/32" square notch trowel (recommended to use a new trowel with each bucket of adhesive), vacuum, commercial grade utility knife (recommended to use one new blade per length of material required), grooving machine (robotic or automated machine suggested), automated welding machine, hand held welding machine, linoleum seam cutter (recommended to use one new blade per edge), quarter moon knife with spatula/guide, triangular scraper, short scriber, combination bar scriber, 6' steel ruler, 110 lbs. linoleum pressure roller, 66 lbs. rubber pressure roller, 4 roller trough truck – must accommodate 6'7" roll width, silicone hand roller

- ***Adhesive:*** EcoGrip – 2 part epoxy

    - Pail coverage: ~700 sq.ft.

- ***Optional:*** Double edge seam cutter for one step seam cutting

Substrate Preparation

All Substrates

- The substrate must be sound, clean, permanently dry, perfectly smooth, and free of cracks and contaminants, including paint, old adhesive, curing compounds, oil, grease, wax, asphalt, or other contaminants that could negatively affect the performance of the adhesive. Any irregularities in the substrate will telegraph (show through) to the finished floor.

- Floor laying work shall not begin until the installer has assessed and approved the substrate and subfloor conditions.

- **Site Conditions**

- The flooring shall be installed only after other trades have finished, and a permanent HVAC system is operational. Temporary heat is not acceptable.
- During installation maintain the room temperature between 65°F and 80°F. Relative humidity between 40% and 60% is ideal. Excessively high or low interior air relative humidity will influence curing of floor patching materials and adhesive open times.
- Maximize fresh air ventilation by using exhaust fans, at point of use, and by opening windows and doors as necessary. Face fans out of the area where flooring is being installed, not into the area.

Because some materials used during installation may be flammable, make sure no sources of ignition or open flame exist near the use of those materials.

STRENGTH

817 West Peachtree St, Suite 910 • Atlanta, GA 30308
t 866.599.8274 f 678.880.8557 • plaeusa.com

Layout

- The architect or end user should be shown the proposed installation layout including any intended seam locations, with the goal of keeping seam visibility to a minimum. Position seams so that:
    - Main traffic runs parallel to – rather than across – the seam.
    - Light does not strike directly across the seam.
    - The seams are away from areas subject to pivoting or rolling traffic.
    - In doorway openings connecting adjoining rooms, parallel seams are required.
- The customer or contractor shall provide a layout drawing for the intended installation that contains the following information
    - Date and scale of drawing
    - Location, swing, and clearance of all doors
    - Existing substrate/subfloor conditions
    - Notation identifying who is responsible for:
        - removal of existing floor coverings and/or underlayments
        - preparation of existing substrate
        - moisture and pH testing
        - removal of debris from new floor covering installation
        - protection of finished floor covering after installation
        - initial maintenance procedures
    - Name of manufacturer, product style, and pattern to be installed
    - Product quantities required
    - Seam layout including pattern match requirements (if required)
    - Location and type of all edge moldings and base required

- The end user shall be provided a copy of the layout drawing for approval prior to installation.

Installation

Excel

1. Thoroughly sweep the substrate to remove all dirt and debris.
2. Install the Excel Mat directly to the concrete using EcoGrip two-part epoxy. Install the Excel Mat into WET adhesive.

1 After the Excel Mat is installed, the adhesive must be allowed to dry for a minimum of 24 hours. During this time, absolutely no traffic is allowed on the Excel Mat. The surface of the Excel Mat must remain clean and free of debris.

2 Upon completion of the adhering process, the Excel Mat must be rolled with a 66 lbs. roller.

Substrate Preparation

All substrates

- The substrate must be sound, clean, permanently dry, perfectly smooth, and free of cracks and contaminants, including paint, old adhesive, curing compounds, oil, grease, wax, asphalt, or other contaminants that could negatively affect the performance of the adhesive. Any irregularities in the substrate will telegraph (show through) to the finished floor.

- Floor laying work shall not begin until the installer has assessed and approved the substrate and subfloor conditions.

Concrete substrates and subfloors

- Ensure that the general contractor has followed ASTM F710 Standard Practice for Preparing Concrete floors to receive Resilient Flooring. ASTM F710 includes requirements for moisture and pH testing, smoothness, flatness, concrete strength, and the presence of a vapor retarder under the slab. ASTM F710 requires that all concrete slabs be tested, regardless of age or grade level, using the Calcium Chloride test (ASTM F1869) and Relative Humidity test (ASTM F2170). No other test methods are acceptable. The General Contractor and installer shall both keep records of all tests related to ASTM F710 on file.

- Test procedures shall be followed exactly in order for test results to be valid. (Building shall be at in service temperature and humidity, concrete shall be properly cleaned, etc.) See ASTM F2170 for details. It is recommended that a qualified, independent third party conduct the tests.

- • Test result requirements :
  - o ASTM F1869: maximum MVER of 5 lbs/1000 sq ft/24 hrs
  - o ASTM F2170: relative internal humidity of 65% or less
  - o pH test: pH between 7.0 and 9.0 Reading below 7.0 or above 9.0 can adversely affect resilient flooring or adhesive or both.

- **• If concrete moisture conditions are outside the above limits, do not commence installation.** To treat concrete slabs that do not meet the above limits, several companies have produced heavy-duty epoxy-based moisture control systems. Mats Inc. does not endorse or prefer any of these systems and provides the below list for information purposes only.
  - o Ardex: 724.203.5000 (www.ardex.com)
  - o Bostik: 978.777.0100 (www.bostik-us.com)
  - o Koester/Koster: 757.425.1206 (www.koesterusa.com)
  - o Mapei: 800.426.2734 (1.800.42.MAPEI) (www.mapei.us)

Site Conditions

- The flooring shall be installed only after other trades have finished, and a permanent HVAC system is operational. Temporary heat is not acceptable.

- During installation maintain the room temperature between 65°F and 80°F. Relative humidity between 40% and 60% is ideal. Excessively high or low interior air relative humidity will influence curing of floor patching materials and adhesive open times.

- Maximize fresh air ventilation by using exhaust fans, at point of use, and by opening windows and doors as necessary. Face fans out of the area where flooring is being installed, not into the area.

Because some materials used during installation may be flammable, make sure no sources of ignition or open flame exist near the use of those materials.

Layout

• The architect or end user should be shown the proposed installation layout including any intended seam locations, with the goal of keeping seam visibility to a minimum. Position seams so that:

- o Main traffic runs parallel to – rather than across – the seam
- o Light does not strike directly across the seam.
- o The seams are away from areas subject to pivoting or rolling traffic.
- o In doorway openings connecting adjoining rooms, parallel seams are required.

- • The flooring dealer or contractor shall provide a layout drawing for the intended installation that contains the following information

- o Date and scale of drawing
- o Location, swing, and clearance of all doors
- o Existing substrate/subfloor conditions

817 West Peachtree St, Suite 910 • Atlanta, GA 30308
t 866.599.8274 f 678.880.8557 • plaeusa.com

Heat (thermal or thread) welding

Important: Proper temperature of the heat welding gun is critical to its success. The processing temperature is approximately 750 – 840 degrees Fahrenheit. Heat welding also depends on the speed of application, temperature, and accuracy of the welding tip directly on the seam. Do not put the tip on the face of the material, as doing so may burn the material. Because site conditions vary, practice the entire procedure, from grooving to glazing, on scrap material to determine the proper procedure for the product. Test seam strength by tugging at

817 West Peachtree St, Suite 910 • Atlanta, GA 30308
t 866.599.8274 f 678.880.8557 • plaeusa.com