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## INSTALLATION GUIDE

### Job Site Conditions

- A. Installation should not begin until after all other trades are finished in the area. If the job requires other trades to work in the area after the installation of the floor, the flooring should be protected with an appropriate cover.
- B. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65° F (18° C) for 48 hours prior to, during and after installation.

### Subfloors

Rubberflex / EarthSaver rolls and tiles may be installed over concrete, approved cementitious based self-leveling materials such as Ardex K-15 or equivalent, and wood.

Note: Ardex Engineered Cements  
400 Ardex Park Drive  
Aliquippa, PA 15001  
(724) 203-5000

Note: Gypsum based patching and leveling compounds are not recommended.

- A. Wood Subfloors: Wood subfloors should be double construction with a minimum thickness of 1". The floor must be rigid, free from movement and have at least 18" of well-ventilated air space below.
- B. Underlayments: The preferred underlayment panel is APA underlayment grade plywood, minimum thickness of ¼", with a fully sanded face.

Note: Particle board, chip board, Masonite, and lauan are not considered suitable underlayments.

- C. Concrete Floors: Concrete shall have a minimum compressive strength of 3000 psi. It must be fully cured and permanently dry.

### Subfloor Requirements and Preparation

- A. Subfloor shall be dry, clean, smooth, level, and structurally sound. They should be free of dust, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive residue and other extraneous materials, according to ASTM F710.
- B. Subfloor should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the new flooring. The surface should be flat to the equivalent of 3/16" (4.8 mm) in 10 feet (3.0 m) radius.
- C. Mechanically remove all traces of old adhesives, paint or other debris by scraping, sanding or scarifying the substrate. Do not use solvents. All high spots shall be ground level and low spots filled with an approved cementitious based patching compound.
- D. All saw cuts (control joints), cracks, indentations and other non-moving joints in the concrete must be filled with an approved cementitious based patching compound.
- E. Expansion joints in the concrete are designed to allow for expansion and contraction of the concrete. If a floor covering is installed over an expansion joint, it more than likely will fail in that area. Expansion joint covers designed for resilient floor coverings should be used.

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- F. Always allow patching materials to dry thoroughly and install according to the manufacturer's instructions. Excessive moisture in patching material may cause bonding problems or a bubbling reaction with the recommended adhesive.

### HAZARDS:

**SILICA WARNING** – Concrete, floor patching compounds, toppings and leveling compounds can contain free crystalline silica. Respirable crystalline silica (particles 1-10 micrometers) can be produced by cutting, sawing, grinding or drilling. Respirable silica is classified by OSHA as a 1A carcinogen and is known to cause silicosis and other respiratory diseases. Avoid actions that cause dust to become airborne. Use local or general ventilation, or protective equipment, to reduce exposure below applicable exposure limits.

**ASBESTOS WARNING** – Resilient flooring, backing, lining felt, paint or asphaltic “cutback” adhesives can contain asbestos fibers. Avoid actions that cause dust to become airborne. Do not sand, dry sweep, dry scrape, drill, saw, beadblast or mechanically chip or pulverize. Regulations may require that the material be tested to determine *asbestos content*. Consult the documents titles, *Recommended Work Practices for Removal of Existing Resilient Floor Coverings*, available from the Resilient Floor Covering Institute.

**LEAD WARNING** – Certain paints can contain lead. Exposure to excessive amounts of lead dust presents a health hazard. Refer to applicable federal, state and local laws and the publication, *Lead Based Paint: Guidelines for Hazard Identification and Abatement in Public and Indian Housing*, available from the United States Department of Housing and Urban Development.

- G. Maximum moisture vapor emission of the concrete must not exceed 5.5 lbs. per 1000 sq. ft. in a 24 hour period as measured by the calcium chloride moisture emission test conducted in accordance to ASTM F1869. If the emissions exceed the limitations, the installation should not proceed until the problem has been corrected.
- H. It is essential that pH tests be taken on all concrete floors. If the pH is greater than 9, it must be neutralized prior to beginning the installation.
- I. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3' x 3' pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring, and there should be adhesive on the subfloor and the back of the flooring.

## Material Storage and Handling

(Rubberflex / EarthSaver Rolls and Tiles)

- A. Material should be delivered to the job site in its original unopened packaging with all labels intact.
- B. Roll material should always be stored lying down. Storing rubber on end will curl the edges resulting in permanent memory of the material. All edges with memory curl must be straight edge cut before installation. Do not store rolls higher than 4 rolls or more than six months. Material should only be stored on a clean, dry, smooth surface.
- C. Inspect all material for visual defects prior to beginning the installation. **No labor claim will be honored on materials installed with visual defects.** Verify the material delivered is the correct style, color and amount. Any discrepancies must be reported immediately before beginning installation.
- D. The material and adhesive must be acclimated at room temperature for a minimum of 24 hours before starting installation.
- E. All rolls must be unrolled and installed in the same direction. Tiles must also be installed in the same direction.

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- F. Roll material is stretched slightly when it is rolled at the factory. At the job site the installer should allow all rolls to relax for a minimum of two hours before gluing or cutting material.

### Installation ~ Rolls

- A. Cut the first sheet at the required length including enough to run up the wall and overlap for seaming at each end.
- B. Position the first sheet against the wall and square with the room.
- C. Cut second sheet with proper extra length.
- D. Position second sheet with a 1" – 1.5" overlap over the first roll at the seam.
- E. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.
- F. Allow the cuts to relax in position for a minimum of 2 hours before gluing.
- G. SEAMING METHODS
  - 1. ¼" (6mm) and thinner: place a 4" wide scrap of material under the seam area. Using a straight edge and new razor blade, hold the knife straight up and down and cut through both pieces in one cut.
  - 2. 3/8" nominal and thicker: Snap a chalk line where the seam will be located. Straight edge seam edge for first piece. Align the first edge to the chalk line; it is very important that the seam is perfectly straight. Straight edge seam edge of second drop and butt to first edge. Do not try to compress or stretch the material.
- H. After all above procedures are performed, begin application of the recommended one-component polyurethane adhesive. Apply adhesive to the substrate using a 1/16" square notched trowel.
- I. Fold the first drop lengthwise (half the width of the roll).
- J. Spread adhesive using proper notch trowel. Take care not to spread more adhesive than can be covered by flooring and rolled within 30 minutes. The open time of the adhesive is 30 – 40 minutes at 70° F and 50% relative humidity.  
  
**Note:** The open time of adhesive is affected by temperature and humidity. High temperatures and high humidity will cause the adhesive to set up quickly. Low temperatures and low humidity will cause adhesive to cure at a slower rate. The installer should monitor on-site conditions and adjust open time accordingly.
- K. Carefully lay the material into the wet adhesive. DO NOT let the material drop because this will cause air to be trapped beneath the flooring.
- L. Immediately roll the floor with a 75 lb. roller to ensure proper transfer of adhesive. Overlap each pass of the roller by 50% of the previous pass to ensure that the floor is properly rolled. Roll the width first then the length. Re-roll again after 30 – 45 minutes.
- M. Fold over second half of first roll and half of second sheet. Spread adhesive. At seam area spread adhesive at 90 degrees to seam to eliminate excessive adhesive oozing up at seam. Roll material.
- N. With 5/32" (4mm) and thinner material it may be necessary to weight down the seam until the adhesive sets. Boxes of cove base or bricks work well. Cover the entire seam.

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- O. Continue the process for each consecutive roll. Always work at a pace so that you are always folding material back into wet adhesive.

Note: Never leave adhesive ridges or puddles, they will telegraph through the material.

- P. Do not allow the adhesive to cure on your hands or the flooring. Immediately wipe off excess adhesive with a rag dampened with mineral spirits! Cured adhesive is very difficult to remove. **We strongly suggest wearing gloves.**
- Q. Hand roll all seams after the entire floor has been rolled. If some seams are gapping, hold them together temporarily with masking tape or blue painters tape. Do not use duct tape as it may leave a residue on the floor. Remove tape after adhesive has developed a firm set (approximately 8 – 12 hours).
- R. After you rolled the floor, keep all foot traffic off the floor for a minimum of 24 hours. Foot traffic and rolling loads can cause permanent indentations or bubbles in the uncured adhesive.

### Installation ~ Tiles

NOTE: Interlocking tiles can be installed using the same procedures as glue down tiles EXCEPT without using any adhesive, \*\* Points H to P).

- A. Inspect tiles for visual defects, including shade variances prior to beginning the installation. No labor claim will be honored on material installed with visual defects. Any moderate to severe discrepancies should be reported immediately before beginning installation.

Rubberflex / EarthSaver tiles are manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to lay out tiles prior to installation and inspect to ensure correct style, thickness, and color.

Tiles manufactured from mats are intended for smaller installations. Larger quantities resulting in multiple dye lots may not be an exact match in shade or density. Every effort is made to ensure the best possible match; however, Rubberflex / EarthSaver makes no warranty on the exact match between dye lots.

- B. Measure the width of the area to be covered.
- C. Mark the center of the area at two points, one at each end.
- D. Snap the chalk line, line #1, through these two points.
- E. Determine the center point of the chalk line.
- F. Using a Carpenter's square or another method, snap a second chalk line, line #2, perpendicular (at 90 degrees) to the first line. The lines should intersect at their centers.

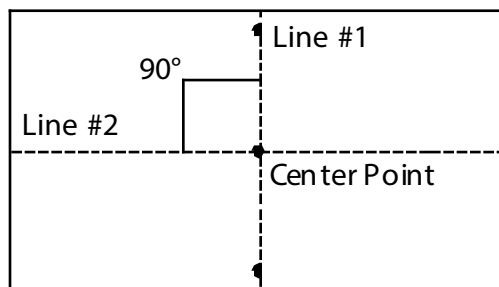


diagram 5a

## INSTALLATION

- G. The area to be covered is now divided into quarters. Begin the installation at the center of the area, where the two lines intersect.

**Note:** To lay tiles in an ashlar configuration, snap a third chalk line perpendicular to line #2 and parallel to Line #1. The distance between line #1 and line #3 should be  $\frac{1}{2}$  the width of the tile (9 or 18 inches). (See diagram 6).

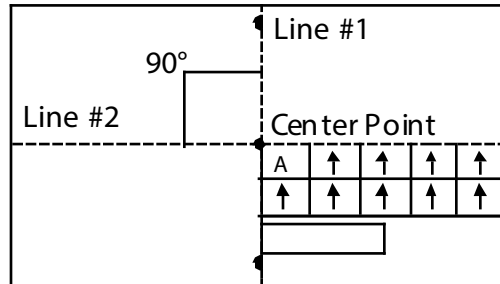


diagram 5b

\*\* Points H to P are NOT applicable for Interlocking Tiles.

- H. After all above procedures are performed, begin application of the recommended one-component polyurethane adhesive, making sure to use the proper recommended trowel size.

3.2mm to 4mm – 1/32" V-Notched Trowel  
6mm to 9mm – 1/16" x 1/16" x 1/16" Square Notched Trowel

- I. Take care not to spread more adhesive than can be covered by flooring and rolled within 30 minutes.
- J. Place the first tile, A, into the wet adhesive, making sure that the edges are precisely placed along the chalk lines and where they intersect. Press firmly on the tiles to remove any curls or entrapped air. **Do not try to stretch or compress fit the tiles.** (See diagrams 5b and 6).

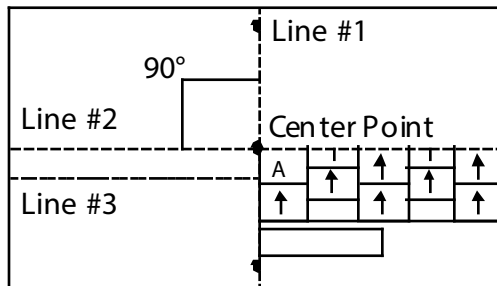


diagram 6

- K. Lay whole tiles from left to right along chalk line #1 up to the wall on the opposite side of chalk line #2. The last tile will likely have to be cut to fit against the wall.

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- L. Do not allow adhesive to cure on your hands or the flooring. Wipe off excess adhesive with a rag dampened with mineral spirits! Cured adhesive is very difficult to remove from hands.

**NOTE:** Use mineral spirits sparingly. Saturating the rubber with mineral spirits may cause the adhesive to be pushed too deeply into the pores of the rubber.

- M. Continue this process with each row until you reach the wall across from chalk line #1.
- N. Go back and fill the gaps between the two original chalk lines and the wall on those two sides.
- O. If some seams are gapping, hold them together temporarily with masking tape or blue painters tape. Do not use duct tape as it may leave a residue on the floor. Remove the tape after the adhesive has developed a firm set. It may be necessary to weigh down some seams.
- P. Roll a 75 lb or 100 lb roller over the floor within 45 minutes to ensure proper transfer of adhesive. Overlap each pass with the roller by 50% of the previous pass to ensure that the floor is properly rolled. Re-roll again after 30 – 45 minutes.
- Q. Keep foot traffic off the floor for a minimum of 24 hours. Foot traffic and rolling loads can cause permanent indentations in the uncured adhesive and cause tiles to shift.