AssurGrip Rx Safety Flooring Rolls

Technical Manual

Installation · Maintenance · Warranty

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Supersedes all previous versions. Check website for current version.

Installation

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Warranty

Installation

I. JOB SITE CONDITIONS

1. 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 floor should be protected appropriately.
2. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65°F (18°C) for 48 hours before, during, and after the installation.

II. SUBFLOORS

1. Suitable subfloors include concrete, Portland-based patching and leveling materials, and wood.

NOTE: Gypsum-based patching and leveling compounds are not acceptable.

NOTE: The selected Portland-based patching and self-leveling materials must be moisture resistant and rated to withstand the RH moisture levels on the project.

2. Wood Subfloors – Wood subfloors should be double construction with a minimum thickness of one inch. The floor must be rigid and free from movement with a minimum of 18 inches of well-ventilated air space below.
3. Underlayments – The preferred underlayment panel is American Plywood Association (APA) underlayment grade plywood, minimum thickness of 1/4-inch, with a fully sanded face.

NOTE: Particleboard, chipboard/OSB, Masonite and luan are not considered to be suitable underlayments.

4. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days before installing AssurGrip Rx. Concrete must be fully cured and permanently dry.

5. Radiant Heat – Fusion-bonded products such as AssurGrip Rx are not recommended for installation over radiant heat.

III. SUBFLOOR REQUIREMENTS AND PREPARATION

1. Subfloors 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.
2. Subfloors 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´ (3.0 m).
3. 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 a Portland-based patching compound.
4. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with a Portland-based patching compound.
5. 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 will likely fail in that area. Use expansion joint covers designed for resilient flooring.
6. 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 bubbling reaction with adhesive.

HAZARDS:

SILICA WARNING – Concrete, floor patching compounds, toppings, and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling can produce respirable crystalline silica (particles 1-10 micrometers). Classified by OSHA as an IA carcinogen, respirable silica is known to cause silicosis and other respiratory diseases. Avoid actions that may cause dust to become airborne. Use local or general ventilation or provide protective equipment to reduce exposure to below the 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 the asbestos content. Consult the document "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.

7. Moisture must be measured using the RH Relative Humidity test method per the ASTM F2170 test standard. Moisture content should not exceed the allowable limit of the selected adhesive.

    a. ES-90 – RH limit of 90% – normally selected
    b. E-Grip 95 – RH limit of 95% – higher RH applications
    c. E-Grip 99 – RH limit of 99% – highest RH applications

    If RH levels exceed the selected adhesive's RH limit, stop and correct situation.

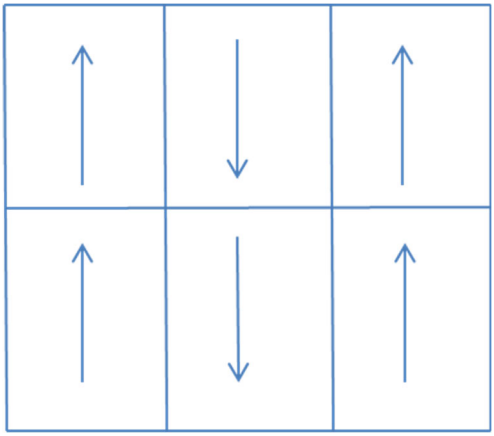
8. In the event that a moisture mitigation system is required, it must conform to the ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
9. Perform pH tests on all concrete floors per ASTM F3441 Testing Concrete pH for Resilient Flooring. If greater than the allowable limit of the selected ECOsurfaces adhesive, neutralize prior to installation.
10. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3´ x 3´ test 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, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

IV. MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. Material must be stored in a climate-controlled environment not to exceed 85°F (30°C)
3. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.
4. Note: Shipping pallets, cradles, banding, etc. are not intended for storage. After 7 days, remove material from shipping pallets, cradles, etc. Rolls of vinyl and vinyl laminated to rubber should be stored standing up. Storing vinyl rolls and vinyl-laminated-to-rubber rolls on their side will result in welting.
5. **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**
6. **Unroll all rolls and allow to relax overnight.**

7. **PLEASE NOTE:** ALL AssurGrip Rx rolls **must be unrolled and installed in the same direction within each consecutive run. Adjacent rows must be laid in the opposite direction to avoid shade variations between the rolls.**

   Adjacent rows of ***AssurGrip Rx*** **Rolls go in *OPPOSITE* directions**



NOTE: Special care should be taken not to fold or crease the material during installation. This can result in permanent visual damage to the wear layer which is not covered under ECOsurfaces' product warranty.

V. INSTALLATION – ROLL MATERIAL

1. Make the assumption that the walls you are butting against are not straight or square. Using a chalk line, make a starting point for an edge of the flooring to follow. The chalk line should be set where the first seam will be located.
2. Cut rolls at the required length, including enough to run up the wall a couple inches.
3. If end seams are necessary, they should be staggered on the floor and overlapped approximately 2". End seams will be trimmed after acclimation period using a square to ensure they fit tightly without gaps.
4. After allowing proper acclimation and rough cuts are made, you may begin the installation.
5. Align the first edge to the chalk line.
   Note: It is very important that the first seam is perfectly straight.
6. After end seams are trimmed, the edges should fit snug with no visual gaps. Care should be taken to not over compress the seam. Over compressed seams will cause peaking.
7. Repeat for each consecutive sheet necessary to complete the area or rolls that will be installed that day.

INSTALLATION – Adhesive Application

1. After performing the above procedures, begin the application of the adhesive. We recommend ES-90, a one-component moisture-cured polyurethane adhesive. **ES-90 should not be mixed**. It is specially formulated for use right out of pail. **Apply ES-90 to substrate with 1/16˝ square- notched trowel.**
2. Fold over the first drop along the wall (half the width of the roll).
3. Spread the adhesive, taking care not to spread more ES-90 than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

   NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

   NOTE: **Do not allow adhesive to cure on your hands or the flooring, and strongly suggest wearing gloves. Cured adhesive is very difficult to remove from hands. Immediately wipe off excess adhesive with a rag dampened with mineral spirits/ denatured alcohol!**

4. Lay the flooring into the wet adhesive. Do not allow the material to “flop” into place; this may cause air entrapment and bubbles beneath the flooring.
5. Immediately roll the floor with a 75–100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length. Roll again within the first 60 minutes.
6. Fold over the second half of the first roll and half the width of the second roll to expose the substrate. Spread the adhesive, roll the flooring, and repeat for each consecutive drop.
7. Continue the process for each consecutive drop. Work at a pace so that you are always folding material back into wet adhesive bed.
8. In some instances, it may be necessary to weigh down/ brick the seams until the adhesive develops a firm set.
   NOTE: Never leave adhesive ridges or puddles. They will telegraph through the material.
9. Hand roll all seams after the entire floor has been rolled.
10. Keep traffic off the floor for a minimum of 24 hours and free from rolling loads for a minimum of 72 hours.

VI. INSTALLATION – Heat Welding

1. Groove seams to 2/3 of the depth of the vinyl
   NOTE: Use a power groover fitted with a diamond grit abrasive cutting blade designed for metal impregnated safety floors.
2. Heat weld with manufacturer’s welding rod. All seams must be heat welded.
3. Complete first pass skive. Mozart skiving knife is recommended.
4. Let weld cool for 10-20 minutes and then do final skive.

VII. INSTALLATION – Sanitary Base (Use 4mm underlayment)

1. Remove the rolls from the shrink wrap and unroll it onto the floor. Lay the material on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length.
2. If end seams are necessary, they should be staggered on the floor and overlapped approximately 2”. End seams will be trimmed after acclimation period using a square to ensure they fit tightly without gaps.
3. After allowing proper acclimation and rough cuts are made you may begin the installation.

   Note: it is very important that the first seam is perfectly straight.

4. Position the second roll so it is snug with the adjacent roll, but not compressed. After end seams are trimmed, the edges should fit snug with no visual gaps. Care should be taken to not over compress the seam. Over compressed seams will cause peaking.
5. Repeat for each consecutive sheet necessary to complete area or rolls that will be installed that day.
6. After the rolls are rough-fitted for the room, strike chalk lines 2” from the walls for Sanitary Base.
7. Where the chalk outline for the seam is marked, make square cut with a fixed, straight blade utility knife to prepare the edge for the picture frame Sanitary Base installation. This allows the 2” space needed for the Sanitary Base to fit between the roll material and the walls.
8. Prepare the ***4mm*** x 2” rubber underlayment strip to be installed between the wall and the prepared edge of the rolls.
9. After performing the above procedures, begin the application of the adhesive. We recommend ES-90, a one-component moisture-cured polyurethane adhesive. Do not mix the ES-90; use it right out of the pail and apply to the substrate using a 1/16″ square notched trowel.
10. Remove the ***4mm*** x 2” rubber underlayment and set aside. Fold over the first roll drop along the wall (half the width of the roll).
11. Spread the adhesive using the proper size square-notched trowel. Take care not to spread more ES-90 than can be covered with flooring within 30 minutes. The open time of the adhesive is 30–40 minutes at 70°F and 50% relative humidity.

NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity below 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.

NOTE: Do not allow adhesive to cure on your hands or the flooring, and we strongly suggest wearing gloves. Cured adhesive is very difficult to remove from hands. Immediately wipe off excess adhesive from floor with a rag dampened with mineral spirits/ denatured alcohol!

12. Lay the roll flooring **and** rubber underlayment into the wet adhesive. Do not allow the sheet material to "flop" into place; this may cause air entrapment and bubbles beneath the flooring.
13. Immediately roll the floor with a 75–100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length. Hand roll all seams after the entire floor has been rolled.
14. Fold over the second half of the first roll and half the width of the second roll. Taking roll sizes into account, this will provide an exposed area of substrate of 6 feet wide and 30 feet in length per roll. Spread the adhesive, roll the flooring, and repeat for each consecutive drop.
15. Roll the ***4mm*** x 2" rubber underlayment into the adhesive and thoroughly roll with a hand roller.
16. Continue the process for each consecutive drop and 2" rubber underlayment. Work at a pace so that you are always folding material back into wet adhesive bed.
17. Let the adhesive cure for several hours before installing Sanitary Base.
18. Sanitary base should be used for the entire area (except at the doorway), or as specified. Gaps between the wall and subfloor must not be larger than 1/8 inch. Gaps larger than 1/8 inch must be filled and smoothed, using a suitable product, before Sanitary Base installation.
19. Ensure the wall is dry, smooth and clean. If dusty, use a water-based primer diluted 1:1 with clean, potable water. Apply using a small paint brush.
20. Leaving the wax paper on the sides of the roll, apply the 3-3/4" E-Flash Tape directly to the wall (1/8 inch up from the floor), pressing firmly into place.
21. **Cut the 3-3/4" E-Flash Tape down to 2"** and install it to the top of the underlayment, tight to the intersection between the wall and floor, pressing firmly into place. Roll all tape with a hand roller before removing wax paper and before installing the Sanitary Base.
22. Dry cut the Sanitary Base to length, mitering as required, and ensure a tight fit at all seams. If not done already, remove the wax paper from the 2-inch E-Flash Tape and firmly press the sanitary base into the tape, keeping it tight to the flooring.
23. Remove the wax paper from the E-Flash Tape on back of Sanitary Base and firmly press the Sanitary Base against wall.
24. Roll Sanitary Base with a hand roller to ensure a good bond.
25. To weld, groove all seams with a hand groover so as not to expose the rubber underlayment.
26. **Heat weld the flat seams.**
27. **Cold weld the vertical seams.**

    Note: Cold weld must be locally sourced. ECOsurfaces recommends Bostik DUO-SIL. Please see https://www.bostik.com/us/en_US/catalog/product/construction/nam/united-states/product-duo-sil

28. Cold-welding the vertical seams: Apply masking tape 1/8" away from each vertical seam on both sides of the seam. Apply a bead of cold weld and smooth the cold weld with a rounded spatula. Remove the tape and smooth the edges where the tape ended. Let cold weld dry 8 hours before initial cleaning.
29. Hand roll all seams after the entire floor has been rolled.
30. Keep traffic off the floor for a minimum of 24 hours. Floor should be free from rolling loads for a minimum of 72 hours.

VIII. Drains

When installing AssurGrip Rx flooring, it may be necessary to extend drain to meet the surface of the flooring. In some cases, the Extend-O-Drain can be used to allow drain cap to be even with the flooring.

Maintenance

These maintenance instructions are intended for the PUR AssurGrip Rx safety floor, which has a polyurethane reinforcement wear layer, allowing for the use of a polish-free maintenance regime.

NOTE: Rubber feet or rubber mats may cause permanent staining to vinyl surfaces. ECOsurfaces does not recommend the use of equipment containing rubber feet, rubber castors, or rubber-backed mats.

NOTE: Fit protective feet to table and chair legs to prevent scratching.

INITIAL CONSTRUCTION CLEAN

1. Wait a minimum of 24-48 hours before conducting the initial cleaning.
2. Remove all loose debris, dust and grit by sweeping or vacuuming.
3. Ensure that all traces of adhesive are removed from the surface of floor using a clean white cloth dampened with mineral spirits.
4. Follow Routine Maintenance instructions below.

ROUTINE MAINTENANCE

1. Sweep or vacuum to remove dust and loose dirt.
2. If available, use using a walk behind scrubber fitted with a medium nylon brush, and scrub using mix of 3-4 ounces E-cleaner / gallon cold water in machine.
3. If a walk behind scrubber is not available, then use a handheld garden sprayer and mix with 3-4 oz of E-cleaner / gallon cold water. Apply E-cleaner mix to area with a nylon pool brush, leaving a lightly coated build up on the floor.
4. Using a medium nylon pool brush or a low-speed rotary scrubber buffer with a medium nylon brush, move E-cleaner solution back and forth, building up a slight foamy slurry.
5. Pick up the solution with a wet vacuum or a walk behind scrubber,
6. Let the floor dry and repeat if necessary.

DEEP CLEANING

1. Sweep or vacuum to remove dust and loose dirt.
2. Mix 16 oz of E-Strip to 1 gallon of water in a handheld garden sprayer and spray area to be cleaned.
3. Allow E-Strip solution to sit for 5-10 minutes; if it dries, simply reapply E-Strip solution
4. Using a low-speed rotary scrubber with a nylon brush attachment, move E-strip back and forth, building up a slight foamy slurry.
5. Pick up the solution with a wet vacuum or a walk behind scrubber.
6. Let the floor dry and repeat if necessary.

NOTE: The maintenance regime works best with the installation of an effective barrier matting system. Using entryway systems/walk off mats (non-staining types) at entrances to buildings prevent dirt, sand, grit, etc., from being tracked onto the floor and can reduce subsequent maintenance requirements.

NOTE: Fit protective feet to table and chair legs to prevent scratching.

NOTE: These maintenance instructions are intended for the PUR AssurGrip Rx floor covering products, which have a polyurethane reinforces surface.

REGULAR CLEANING IS MORE BENEFICIAL AND COST-EFFECTIVE THAN OCCASIONAL HEAVY CLEANING.

APPROVED MAINTENANCE PRODUCTS	
Product	**ECOsurfaces 833-888-1760 www.ecosurfaces.com**
Neutral Cleaner	**E-Cleaner**
Alkaline Cleaner	**E-Strip**
Germicidal Cleaner	**Enviro Care® Neutral Disinfectant**

Warranty

ECOsurfaces guarantees our AssurGrip Rx Safety Flooring products to be free from defects in workmanship and materials affecting wearing properties, and to meet all published AssurGrip Rx specifications at time of manufacturing, provided that the product has been installed in accordance with the installation instructions issued by us. These warranties only apply to the original purchaser.

Please see the ECOsurfaces Warranty Guide for length specifics.

Any defect must be notified to us in writing, and we reserve the right to inspect and investigate any alleged defect. If found to be defective under normal non-abusive conditions, at the discretion of ECOsurfaces, the sole remedy against the seller will be to repair, to replace, or to issue a credit not exceeding the selling price of the defective goods. If product is no longer available, ECOsurfaces reserves the right to substitute similar product of equal value and/or quality.

This warranty does not cover defects arising from any of the following:

1. Excessive Moisture
2. Chemical Reaction
3. Corrosion
4. Extremes in temperature
5. Abnormal usage above which the product is specified
6. Wear from chairs or other furniture without proper floor protectors
7. Indentations, scratches or surface damage caused by improper maintenance, misuse, negligence, spike heeled shoes, pebbles, sand, or other abrasive materials
8. Sub-floor irregularities causing premature wear
9. Dissatisfaction due to improper installation and/or maintenance
10. Labor on material installed with obvious defects
11. Labor costs on repair or replacement material
12. Any discoloration or bond failure as a result of unapproved adhesives or improper substrate preparation
13. Staining or discoloration caused by rubber feet, rubber castors, rubber-backed mats, etc.
14. Damage resulting from unapproved floor care products
15. Purchase of “seconds,” “remnants,” or other (non-first quality) flooring materials are not covered under this warranty.

These warranties are in lieu of any other warranty expressed or implied. ECOsurfaces shall not be liable for any incidental or consequential damages which may result from a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. These warranties give you specific rights, and you may also have rights which may vary from state to state. To know what your legal rights are in your state, consult your local or state Consumer Affairs Office or your State Attorney General. For complete and latest warranty information, please see www.ecosurfaces.com.

Manufactured in the U.S.A. by:

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