ECOnights Rolls and Interlocking Tiles Technical Manual

Installation – Maintenance – Warranty

Manufactured in the U.S.A.

Revised on 21Mar2025
Supersedes all previous versions.
Check website for updates.

ROLLS

I. ROLL JOBSITE 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 with an appropriate cover.
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. ROLL SUBFLOOR

ECOsurfaces rolls may be installed over concrete, Portland- based patching and leveling materials, and wood.

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.

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

1. 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.
2. 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 lauan are not considered to be suitable underlayments.

3. Concrete Floors – Concrete shall have a minimum compressive strength of 3000 psi. New concrete slabs should cure for a minimum of 28 days. It must be fully cured and permanently dried.
4. Radiant heat – ECOnights rolls are suitable over radiant heat when fully adhered; interlocking tiles are not suitable.
   A. Ecore rubber flooring has an approx. R-Value of R1 per inch thickness. Check with radiant heat mfr. for suitability. Turn off heat and maintain slab at 65F for 48 hours before, during and 48 hours after installation. 48 hours after installation, bring temperature up gradually. Temperature settings should be within the standards set forth by the radiant heat industry throughout the life of the floor.

III. ROLL 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 a bubbling reaction with the 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, bead blast, 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. The selected Portland-based patching and self-leveling materials must be moisture resistant and rated to withstand the RH moisture levels on the project.

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

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

   If outside, simply use ES-90

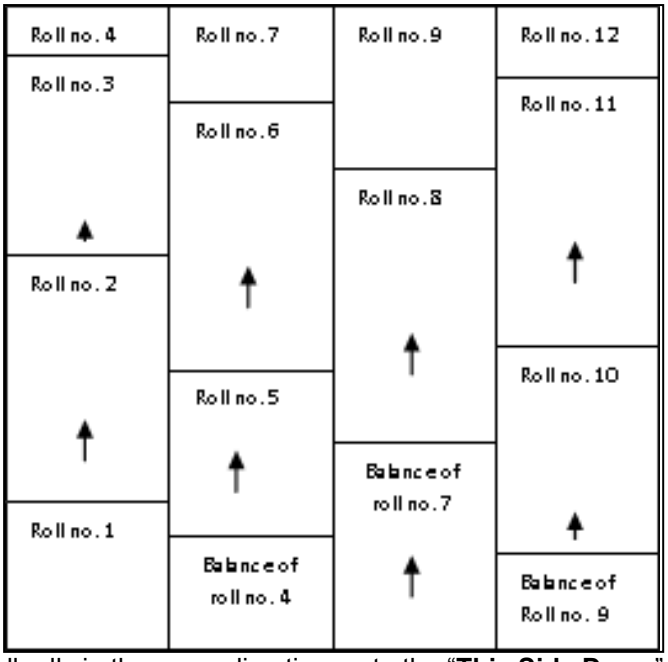
8. If a moisture mitigation system is required, it must conform to ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.
9. For installations requiring adhesion to concrete, perform pH tests on all concrete floors per ASTM F3441 Testing Concrete pH for Resilient Flooring. If greater than the allowable limit of the selected Ecore 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. ROLL MATERIAL STORAGE AND HANDLING

1. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
2. **NOTE:** Shipping pallets, cradles, banding, etc. are not intended for storage. After 7 days, remove material from shipping pallets, cradles, etc. Rubber roll material should always be stored laying down; Storing rubber rolls 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.
3. Material should only be stored inside, protected from UV light, on a clean, dry, smooth surface. Rolls should be stored with the end of the roll on top, facing up. The end of the roll should not be positioned against an adjacent roll or surface, or welts may be created on that roll and the roll below.
4. Roll material is stretched slightly during the manufacturing process. At the job site, the installer should

unroll all rolls and allow to relax overnight. A bare minimum of two hours is required. Shaking the material once it is unrolled can help it to relax.

5. **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**
6. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.
7. Rolls are labeled with batch numbers and roll numbers. Do not mix batch numbers together and install all rolls in consecutive order.
8. **NOTE: Ordering various custom roll lengths for a product eliminates the possibility of the rolls being manufactured and numbered in the customer's desired installation sequence, and Ecore cannot be responsible for resulting shading issues.**



9. Install all rolls in the same direction; note the "**This Side Down**" stamp at the beginning of the roll.

V. ROLL INSTALLATION

1. Assume 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. Remove the roll from the shrink wrap and unroll it onto the floor. Lay the rubber on the floor in a way that will use your cuts efficiently. Cut all rolls at the required length, including enough to run up the wall. End seams should be staggered and overlapped approximately 3-6".
3. **Allow the rough cuts to relax for a minimum of two hours** but preferably overnight.
4. Trim end seams **after acclimation** using a square for a tight fit without gaps.
5. Align the first edge to the chalk line.
   NOTE: it is very important that the first seam is perfectly straight.
6. Position the second roll with no more than a 1/8" overlap over the first roll at the seam. After adhesive is applied to substrate the material will be worked back to eliminate the overlap. This procedure will leave tight seams and eliminate any gaps.

7. Care should be taken to not over compress the seam. Over compressed seams cause peaking.

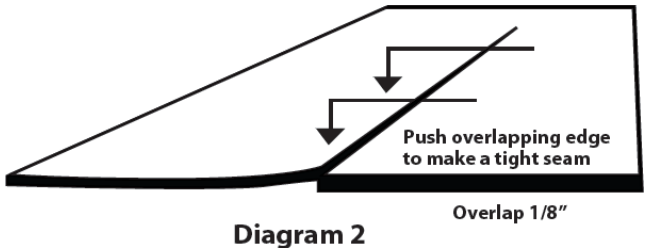


Diagram 2

8. It may be necessary to trim the edge of the second lineal drop if the rolls do not extend the length or width of the room. Rolls laid end to end with a variance in roll width greater than ¼" could result in peaked seams.
9. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

NOTE: ECOnights Rolls are suitable for installation over radiant heat when fully adhered.

10. ROLL METHOD 1 – GLUE DOWN

A. After performing the above procedures, begin the application of ES-90, a one-component moisture-cured polyurethane adhesive. ES-90 should not be mixed; use right out of the pail and applied to the substrate using a 1/16″ square- notched trowel.
B. Fold over the first drop along the wall (half the width of the roll).
C. Spread the adhesive using the proper size square-notched trowel. Take care not to spread more adhesive 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: The open time of adhesive is affected by temperature and humidity. High temperatures and high humidity will cause the adhesive to set 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.

D. 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.
E. 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.
F. Fold over the second half of the first roll and half of the second roll. Spread the adhesive. Spread the adhesive at right angles to the seam to prevent the adhesive from oozing up through the seam. Roll the flooring.
G. It may be necessary to weigh down the seam until the adhesive develops a firm set.
H. Continue the process for each consecutive drop. 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.

NOTE: Do not allow adhesive to cure on your hands or the flooring; it is very difficult to remove. We strongly suggest wearing gloves.

NOTE: Immediately wipe off excess adhesive from floor with a rag dampened with mineral spirits or denatured alcohol and immediately remove the mineral spirits/ denatured alcohol with a rag damp with water. Use mineral spirits / denatured alcohol sparingly!

NOTE: Use mineral spirits / denatured alcohol sparingly. Saturating the rubber may darken the flooring and cause the adhesive to be pushed too deeply into the pores of the rubber.

I. If some seams are gapping, it is possible to hold them together temporarily with blue painter's tape. **Tape MUST be removed after adhesive has developed a firm set which is approximately 2-3 hours. Allowing tape to remain longer than 2-3 hours or using aggressive tapes may result in adhesive residue. ECOsurfaces will not be responsible for residue left behind from tape of any kind.**

J. Keep all foot traffic off the floor for a minimum of 24 hours, heavy loads for 48 hrs. and free from rolling loads for a minimum of 72 hours or risk causing permanent indentations or debonding in the uncured adhesive.

11. ROLL METHOD 2 – TAPE DOWN

NOTE: It is characteristic for rubber flooring to expand and contract with changes in temperature and humidity. **Dependent upon conditions, double face tape may not be strong enough to hold rubber in place in every situation and when used, neither the flooring nor the installation method can be warranted.** For permanent installations, it is recommended to use the "GLUE DOWN" method above.

NOTE: Tape method is not recommended for ice rink applications.

A. Dry lay the rolls onto the subfloor.
B. Draw a pencil line beneath all seams to be taped.
C. Use a high-quality double-faced carpet tape with a minimum width of two inches.
D. Fold over the first drop along the chalk line (half the width of the roll).
E. Apply two strips of the double-faced tape along the seam, one on each side of the pencil mark.
F. Remove the release paper and place the flooring onto the exposed tape.
G. When butting one roll next to another, overlap the seams by no more than 1/8″. Work the material back to eliminate the overlap. This procedure will leave tight seams over the tape and eliminate any gaps.
H. Hand-roll the seams to ensure adequate contact. Do not roll the entire floor.

Interlocking Tile

NOTE: ECOnights interlocking tiles are ***not*** suitable for installation over radiant heat.

I. JOBSITE CONDITIONS

A. Inspect all tiles for visual defects before beginning installation. No labor claim will be honored on material installed with visual defects. Any discrepancies must be reported immediately before beginning installation.

B. Care should be taken when moving large or heavy equipment over Interlocking Tiles due to the modular free-floating design of the system. Plywood or other rigid sheeting can be utilized to better disperse the load to avoid tile buckle.
C. 8mm Interlocking Tiles are the minimum approved thickness in free weight areas and extra matting is suggested in these areas to reduce tile damage from repeated high impact.
D. This product is intended for indoor use only. Approved temperature range of 55-75 degrees F.
E. Do not use where the flooring will be exposed to fuels, oils, solvents, chemicals, or large fluctuations in temperature.
F. This product is not designed to be used under rolling loads or in commercial applications due to the loose lay design. If full adhesion is required, it is recommended to use rolls.
G. Radiant Heat - Interlocking Tiles are not suitable for installation over radiant heat
H. 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.
I. Install Interlocking Tiles over wood or concrete subfloors, or firmly adhered resilient flooring such as vinyl, linoleum, laminate, ceramic tile, and wood.
J. Surface should be smooth to prevent irregularities, roughness, or other defects from transferring through to the new flooring.
K. Install all interlocking tiles in the same direction using the directional markings on the bottom of the tiles.

II. MATERIAL STORAGE AND HANDLING

A. Store the material inside, protected from UV light, in its original, unopened packaging with all labels intact.
B. Inspect all materials for visual defects before beginning the installation. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported to the retailer where the material was purchased.
C. Remove tiles from cartons and allow to sit in the area to be installed, at uniform room temperature, for 48 hours prior to installation.
D. Mix tiles from several boxes or skids. Ensure that job site and subfloor conditions are met.
E. Install interlocking tiles in the same direction using the directional markings on the bottom of the tiles.

IV. INSTALATION METHOD 1 – AREA MAT LAYOUT – Interlocking Tiles

A. For an area mat layout, lay out tiles to desired length and width and interlock the tabs.
B. If desired, trim perimeter Interlocking tabs from area layout with utility knife & metal straight edge.
C. Install interlocking tiles in the same direction using the directional markings on the bottom of the tiles.

V. INSTALATION METHOD 2 – WALL TO WALL LAYOUT – Interlocking Tiles

A. Sweep area clear of all dust and loose debris.
B. Determine a starting point for the first course of tile to best suit the site area. Most walls are not straight, or corners square, and tile installation generally starts in the middle of the room. Measure the width and length of the space, divide room into 4 equal quadrants and snap chalk lines that are perpendicular (90 degrees) to each other.
C. Install interlocking tiles in the same direction using the directional markings on the bottom of the tiles.
D. Place the first tile's edges where the two perpendicular chalk lines meet.
E. Hint: Adjust starting point in room to balance the tiles side-to-side and end up with small cuts of tile against walls.
F. Cut the last piece to fit against the wall using a metal straight edge and a sharp utility knife. Do not compression fit the tile against the wall. Allow 1/4" around the perimeter for expansion.

Roll and Interlocking Tile Maintenance and Assigned Responsibilities

It is the Specifier's responsibility to:

- Mandate covering and protection of floor from damage and construction debris until construction is complete.
- Assign to the appropriate party responsibility for the initial cleaning of floor following published procedures.

ECOsurfaces recommends our environmentally friendly line of maintenance products, including E-Cleaner.

It is the General Contractor's responsibility to provide:

- A building or installation area that is fully enclosed from the elements, e.g., finished roof, windows, doors, etc.
- Temperature that is climate controlled with a minimum uniform temperature of 65° F for 48 hours prior to, during, and after the flooring installation, for acclimation of flooring materials.
- Protection for those areas of the flooring that are subject to direct sunlight through doors or windows by having the doors or windows covered for such time until the installation of the material is complete.
- Protection for flooring from damage and construction debris by using an appropriate floor covering until such time that the recommended initial cleaning may be performed.

Steps	Green Products	Dilution	Diluted Coverage	Pads & Brushes
Initial Cleaning	E-Cleaner	10 oz./gal. water	2,000 sq. ft./gal.	Microfiber mop, Soft Nylon Brush or 3M 5100 Red Pad or equal
Daily Cleaning	E-Cleaner	2-4 oz./gal. water	6,000 sq. ft./gal.	Microfiber mop, Soft Nylon Brush or 3M 5100 Red Pad or equal
Heavy Soil and Restorative Maintenance Cleaning	E-Cleaner E-Strip	10 oz/gal water 16-32 oz./ gal. water	500-1,000 sq. ft./ gal.	3M 7100 Brown or 7200 Black stripper pad or equal. DO **NOT USE 3M 7300 HIGH PRODUCTIVITY PADS OR EQUAL**

I. ROLLS CLEANING PROCEDURES

1. Initial Roll Cleaning
   a. Remove all surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming with a high CFM vacuum. For large areas, use auto scrubbers to clean floors.
   b. Scrub floor with E-Cleaner (10 oz. /gal. of water), using buffer or auto scrubber with a soft nylon brush or pad per table above. Avoid flooding the floor.
   c. Pick up solution with a wet vacuum. Rinse with clean water, picking up the rinse water with a wet vacuum and allowing it to dry thoroughly (6-8 hours).

2. Daily/Regular Roll Cleaning
   a. Remove surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming.
   b. Damp mop with a microfiber mop or auto-scrub with E-Cleaner diluted (2-4 oz. /gal. of water) and pad per table above.
   c. Rinse with clean water to remove residue.

3. Heavy Roll Soil
   a. Remove surface soil, debris, sand, and grit by sweeping, dust mopping, or vacuuming.
   b. Scrub floor with E-Cleaner using a low-speed scrubber or auto scrubber with pad per table above. **DO NOT USE 3M 7300 HIGH PRODUCTIVITY PADS OR EQUAL**
   c. Pick up solution with a wet vacuum, rinse with clean water, and allow to dry thoroughly (6-8 hours).

4. Restorative Roll Maintenance
   a. Sweep or vacuum to remove loose soil.
   b. Heavy scrub using a rotary low-speed scrubber or auto scrubber with pad per table above and E-Strip diluted per table above. **NOT USE 3M 7300 HIGH PRODUCTIVITY PADS OR EQUAL**
   c. Pick up solution with wet vac.
   d. Rinse with clean water and microfiber mop.
   e. Allow floor to thoroughly dry (6-8 hours).

II. INTERLOCKING TILE CLEANING PROCEDURES

1. Initial Interlocking Tile Cleaning
   a. Remove all surface soil, debris, sand, and grit by sweeping, or vacuuming.
   b. Scrub floor with recommended E-Cleaner with a rectangular microfiber mop. A soft nylon brush may be used in more heavily soiled areas.
   c. **DO NOT flood the Interlocking Tiles with water as the interlocking design will allow water to pass through.**
   d. Rinse with clean water and microfiber mop.
   e. Allow floor to thoroughly dry (6-8 hours).

2. Daily/Regular Interlocking Tile Cleaning
   a. Sweep, dust mop, or vacuum floor to remove surface soil, debris, sand, and grit.
   b. Damp mop with a microfiber mop using approved E-Cleaner.

3. Heavy Interlocking Tile Soil
   a. Hard-to-clean and greasy areas may require a higher concentration of E-Cleaner and may require a restorative maintenance.

4. Restorative Interlocking Tile Maintenance
   a. Sweep or vacuum to remove loose soil.
   b. Heavy scrub using a rotary scrubber with a Brown or Black Stripper pad and stripper solution of E-Strip. **DO NOT flood the Interlocking Tiles with water as the interlocking design will allow water to pass through.**
   c. Pick up solution with wet vac.
   d. Rinse with clean water.
   e. Allow floor to thoroughly dry.

Warranty

All ECOsurfaces rubber flooring is guaranteed to be free from manufacturing defects on both material and workmanship. If such a defect is discovered, the customer must notify ECOsurfaces either through the contracting installer, distributor, or directly. 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. These warranties only apply to the original purchaser.

Please see the ECOsurfaces Warranty Guide for length specifics.

ECOsurfaces roll warranty shall not cover dissatisfaction due to improper installation, normal wear or quality of installation expected from the use or environment of installation, damage from improper maintenance or usage, or general misuse, including and without limitation: burns, cuts, tears, scratches, scuffs, damage from rolling loads, damage from cleaning products not recommended by ECOsurfaces, slight shade variations or shade variations due to exposure to direct sunlight, or differences in color between samples or photographs and actual flooring.

Excluded from Warranty - These warranties do not apply to the following:

1. The exact matching of shade, color or mottling.
2. Any express or implied promise made by any salesperson or representative.
3. Tears, burns, cuts or damage due to improper installation, improper use or improper cleaning agents or maintenance methods.
4. Wear from chairs or other furniture without proper floor protectors will void the warranty. Care should be taken to protect the flooring from damage by using good quality protective feet for chairs, tables, and other furniture. Chair mats may be required under chairs with casters/wheels.
5. Labor costs for installation of original or replacement material.

6. Sale of “Remnants,” “Seconds,” “Off Goods,” or other irregular (non-first quality) flooring materials. With respect to “Seconds,” “Off Goods,” or “Remnants,” such are sold “as is” and ECOsurfaces makes no warranties whatsoever, express or implied with respect thereto, including warranties of merchantability or fitness for a particular purpose.
7. Problems caused by moisture, hydrostatic pressure, or alkali in the sub-floor.
8. Problems caused by uses, maintenance, and installation that are contrary to ECOsurfaces specifications, recommendations, or instructions.
9. Material installed with obvious defects.
10. Damage to flooring products from high heels or spike heels.
11. Damage or discoloration to flooring products from rubber mats, rubber backed mats, or car tires.
12. Installation of ECOsurfaces products with adhesives other than those recommended by ECOsurfaces.
13. Fading and/or discoloration resulting from heavy sunlight penetration and ultraviolet ray exposure from direct or glass-filtered sunlight.
14. Material that is not installed and maintained as recommended by ECOsurfaces.
15. Damage to flooring products from pallet jack and tow-motor traffic.
16. Environments where the product will be exposed to animal fats, vegetable oils, grease, or petroleum-based materials. (i.e.: commercial kitchens or auto repair facilities.)
17. Damage from skate picks and heel points, or skate punctures, gouges, or tears.
18. Excessive wear in heavy use areas (i.e., players’ benches, penalty boxes, main access to ice surface, congested traffic areas, change rooms, free weight areas and the like), pivot points and other high stress areas because of the nature of use.
19. Differences in color between products and photography.
20. Embossing / density deviations between product and samples, photography.

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 visit www.ecosurfaces.com .

Manufactured in the U.S.A.

833-888-1760 www.ecosurfaces.com