



Ultra-Turf Tile Technical Manual

Installation • Maintenance • Warranty

Manufactured in the U.S.A. by:



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Supersedes all previous versions.
Check website for updates.

Tools and Base Preparation

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I. RECOMMENDED INSTALLATION METHODS

INTERIOR INSTALLATION			EXTERIOR INSTALLATION		
	24" x 24" x 1"			24" x 24" x 1"	
Surface	Quad Blok only	Quad Blok +Full Glue	Surface	Quad Blok only	Quad Blok +Full Glue
Concrete	OK	OK	Concrete	--NO--	OK
Asphalt	OK	OK	Asphalt	--NO--	OK
Plywood	OK	OK	Compact Gravel	--NO--	--NO--
Compact Gravel	--NO--	--NO--	Wood	--NO--	--NO--
Wood or Tile	OK	OK	Resilient Flooring	--NO--	--NO--
Resilient Flooring	OK	--NO--	Carpet	--NO--	--NO--
Carpet	OK	--NO--	Rooftops	--NO--	--NO--

II. TOOLS / MATERIALS REQUIRED

- Two tape measures - 25' and 50'
- Chalk line - white only!
- Saber saw (Jig saw) or band saw
- Blades for saber saw (7-10 teeth per inch, wood type)
- Utility knife with heavy-duty blades
- Framing square/metal straight edge
- Silver or gold color paint pencils
- Standard size caulk gun
- 4" slot blade screwdriver
- Notched trowel -1/8" square notch
- Safety glasses
- 1-1/2" flexible putty knife
- Coveralls
- Kneepads
- Solvent-safe rubber gloves
- Rags
- Trash bags
- Push broom or shop vac
- Mineral spirits
- Installation instructions
- String line
- Cutting table (shipping pallet)
- Dustpan
- 2-3 lb. sledge hammer or rubber mallet
- 2'x 4' to use as tapping block
- 75-100 pound three section floor roller

III. SITE WORK

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

A. Site Elevation

- On grade installation - The finished installed height of the tile surface will be equal to or slightly higher than the perimeter grade but not more than 1" higher unless approved by the project engineer.

2. Above grade installation – The finished installed height of the tile surface will usually require the use of perimeter reducers to transition to floor elevation, unless installation terminates at a wall.
3. Tiles must be fully supported by the substrate. Substrate irregularities, unevenness, roughness, etc. should not be apparent after tile installation. The base should be free of depressions that would pond water.

IV. BASE OPTIONS

A. Hard Base Construction

1. Concrete Base:
 - a. Concrete base will be cast-in-place with a minimum compressive strength of 3,000 PSI after 28 days cure. The base should be free of depressions that would pond water. New concrete slabs should cure for a minimum of 28 days before installing tile.
2. Paved Asphalt Base:
 - a. Course aggregate mixtures will provide a stable base. The aggregate size best suited for the adhered system is 3/8" to 1/2". Do not use asphalt mixtures that contain a high percentage of fines, as they are not stable in hot weather and may become soft enough to allow the tiles to slide in high use areas.
 - b. The soil sub grade must be compacted with a minimum of two passes using a 10 ton vibratory roller with no soft or moving areas upon completion. The crushed stone base must also be compacted with a minimum of two passes using a 10 ton vibratory roller. The binder and wear courses of the asphalt must both meet 95% of the theoretical maximum density of the JMF (Job Mix Formula).

Total Passing Sieve	Percent by Weight
1/2"	100
3/8"	80-100
#4	45-90
#8	30-65
#50	5-25
#200	2-8
Asphalt Cement	6-8

- c. New asphalt surfaces should be allowed to cure for 28 days before the adhered tile system is laid.

GENERAL INFORMATION

- A. Tile may be installed over surfaces as listed in table above and must be level, in good condition, and clear of dirt and loose debris.
- B. Installation should not begin until all other trades are finished in the area.
- C. Areas to receive flooring should be weather tight and maintained at a minimum uniform temperature of 65° F for 48 hours before, during, and after the installation.
- D. Unpack tiles and allow them to sit in the area to be installed. Tiles and adhesive must be acclimated at a uniform room temperature for a minimum of 48 hours prior to installation.

- E. For installations requiring adhesion to concrete, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels exceed the limitations the installation should not proceed until the situation has been corrected.
 - 1. 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.
- F. For installations requiring adhesion to concrete, pH tests must be taken. If the pH is greater than 9, it must be neutralized prior to beginning the installation.

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color-tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

NOTE: It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

I. SITE LAYOUT

- G. Sweep area clear of all dust and loose debris.

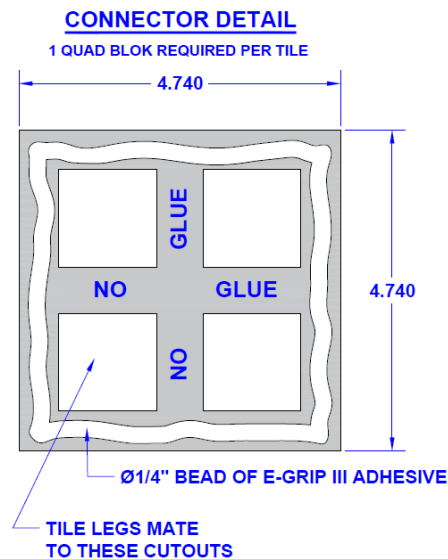
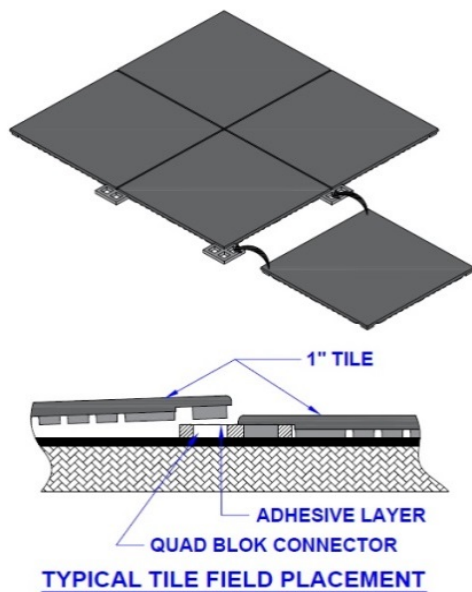
Determine a starting point for the first course of tile to best suit the site area. For irregular site configurations, the best starting point is often in the center. This will ensure a symmetrical finish for tiles that require trimming along the perimeter. Other installations are best started in the corner or along one edge that represents the length or width dimension of the site.
- H. **It is important to start the installation from a perfectly straight line or attached channel or timber.**
- I. Mark two points on the base surface at an equal distance from the edge of the installation. These points should be located near the opposite ends of the site in the length-wise direction.
- J. Snap a chalk line through the established points.
- K. Measure the length of the site along the chalk line. Mark a point at half the distance of the site.
- L. Using the 3-4-5 right triangle method, snap a chalk line to form a 90° angle to the previously established length-wise chalk line. These perpendicular reference lines will serve as a guide for laying the first course of tile. A channel or timber may be secured to the substrate to help keep the tiles snug during the installation process.

QUAD BLOK INSTALLATION (ALWAYS Required)

- A. Follow the Site Layout instructions to prepare the area for the installation of the 1" tiles.
- B. Once chalk lines are established, place the first tile at the intersection of two chalk lines, aligning adjacent edges of the tile with the chalk lines.
- C. Apply a continuous 1/4" diameter bead of E-Grip III adhesive around the perimeter of the Quad Blok connectors. Working adhesive time is dependent upon environmental conditions. See NO GLUE zones in Connector Detail drawing below.
- D. Fit the first tile with four prepared Quad Blok connectors by lifting each tile corner slightly, sliding the connectors under each corner and engaging the four corner legs of each tile with the respective apertures in the Quad Blok. Continue to sequentially lay the tile and to set the Quad Blok connectors along one chalk line until the first course of tile is complete.

NOTE: Cut the Quad Blok connectors in half to secure perimeter tiles

- E. Complete the other three quadrants in a similar fashion.
- F. Roll with a 75–100 pound flooring roller after gluing tiles into Quad Bloks. Roll again 1 hour later.
- G. Allow 24 hours for adhesive to cure before opening area for foot traffic, 48 hours for heavy loads and 72 hours before placing equipment.
- H. One 10.1 ounce tube of E-Grip III is required for approx. 15 of the Quad Bloks.



Note: Adhesive spills must be removed while still wet. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits, followed by a rag damp with water to remove the mineral spirits. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

II. FITTING AND CUTTING THE OUTER TILE COURSE

- A. In most wall-to-wall installations, the tiles in the outer course will have to be cut to fit. Tile may be cut using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also works well. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital settings will produce the best results. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for this purpose.
- B. DO NOT leave a cut edge of a tile exposed to foot traffic. Any tile edge that has its factory molded, radius edge removed for any reason should have its cut edge protected using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- C. Cut tile's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Complete cut with a saber saw utilizing a 7-10 TPI wood cutting blade, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. Use a cutting table to support the work; a standard shipping pallet works well,
- D. If the tile is being installed wall-to-wall, the perimeter tiles **are also** installed with Quad Bloks connecting the perimeter tiles to the interior tiles, with the walls serving to contain the perimeter row of tile. Any perimeter tiles that are not contained by walls, such as at a doorway, or in a free-standing or "area rug" configuration, should be adhered to the substrate. Ramps will be adhered as well, and provide a transition from the tile to the original floor level. The perimeter tiles and ramps must be adhered using Ecore's E-Grip III adhesive with a 1/8" square-notched trowel.

III. ADHERING THE OUTER TILE COURSE

- A. Ramps, and any perimeter tiles not contained by walls, should be adhered to the existing substrate using E-Grip III adhesive with a 1/8" square notched trowel. Set tiles and ramps in the adhesive bed. **NOTE: Cut the Quad Blok connectors in half to secure the outer tile course.**
- B. Once tiles are laid into the wet adhesive, roll the floor with a 75-100 pound flooring roller. Adhesive should be allowed to cure for 24 hours before walking on the tile.

IV. CUTTING TILES & RAMPS

- A. DO NOT leave a cut edge of a tile exposed to foot traffic. Any tile edge that has its factory molded, radius edge removed for any reason should have its cut edge protected using a 1" masonry or timber edging, unless that edge is to be placed against a wall or other vertical member.
- B. Cut tile's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Complete cut with a saber saw utilizing a 7-10 TPI wood cutting blade, especially for radius or free-form cuts. A saw with a 3-3.5 amp rated motor having a 1" stroke with variable orbital setting will produce the best results. Use a cutting table to support the work; a standard shipping pallet works well,

V. INSTALLATION – RAMPS & TRANSITIONS

- A. Cut away any protruding Quad Blok material
- B. Sweep area clear and vacuum up all dust.
- C. Dry lay ramps and make appropriate cuts before opening the adhesive.
- D. Miter cut ramps at corners.
- E. Cut ramp's surface with a heavy-duty utility or carpet knife and a straight edge for neatness. Finish the cut with a band saw or a saber saw with 7-10 TPI wood cutting blade.
 Note: The toe edge of the ADA ramp contains a wire reinforcement material. Take care not to bend the edges as it will be difficult to get ramps with bent reinforcement to lay flat.
- F. Mark the areas where adhesive is to be applied and temporarily remove the ramps.
- G. Spread the recommended E-Grip III urethane adhesive using a 1/8" square notch trowel. Do not spread more adhesive than can be covered in 30 minutes.

- H. Carefully place the ramps into the adhesive. Be sure to press down firmly to assure proper adhesive transfer to the back of ramp & roll with a 75-100 pound flooring roller.
- I. Use weight to evenly hold down the toe edge of the ramps. The entire toe edge should be weighted, and the weight should be heavy enough to prevent the edge of the ramps from lifting out of the adhesive.

Note: Adhesive spills must be removed while still wet. Use a dry rag to pick up the majority of the adhesive. Wipe the remaining residue with a rag dampened with mineral spirits, followed by a rag dampened with water. Cured adhesive can only be removed from surfaces by mechanical means, such as scraping or sanding.

- J. After 24 hours, remove the weight from the ramps.
- K. Clean and maintain the area in accordance with the instructions in the Maintenance Section below.

VI. FULLY ADHERED INSTALLATION – Mandatory for exterior installations

- A. Follow the site layout instructions to prepare the site area for installation. The tiles, accessories, and substrates 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.

NOTE: Dimensional tolerance for tiles is +/- 1/8" in thickness and +/- 1/8" in width. From time to time during installation, it may be necessary to measure and hand select tiles to ensure that course lines remain straight. Additionally, color tone and shading may vary to the extent that some hand selection is required to maintain maximum uniformity throughout the site.

As with any flooring product, dry laying and full inspection of all tiles will allow for a quality installation. Tiles should be inspected from several angles and adjusted as necessary.

NOTE: It is the installer's responsibility to inspect all products to insure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning the installation.

NOTE: Use a 1/8" square notch trowel. Coverage rates for the E-Grip III adhesive are approximately 60 square foot per gallon using a 1/8" square notch trowel.

- B. For an interior installation, moisture must be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If the levels exceed the limitations, the installation should not proceed until the situation has been corrected.
 - 1. 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.
- C. 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.
- D. Using a 1/8" square notch trowel, apply the E-Grip III adhesive out slightly wider than the tile being placed. Do not spread more adhesive than can be covered in 30 minutes.
- E. **Quad Bloks must be used and installed per Quad Blok installation section above.**
- F. Place tiles with Quad Bloks into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive in a similar manner.

- G. After placing tiles into adhesive bed, roll the tiles with a 75 pound three section flooring roller to ensure adhesive transfer to the bottom of the tile feet.
- H. Adhesive should be allowed to cure for 24 hours before allowing foot traffic. All heavy traffic and/or light rolling loads should be avoided for a minimum of 72 hours after installation to allow adhesive to develop strength. In cases where 72 hours is not possible, it is recommended to cover the floor with a rigid covering such as ½" plywood sheeting with a fully sanded face against the surface of the tiles.
- I. Tile cuts are typically laid out by referencing dimensions from the edges of the tiles, already in position, to a wall or other obstruction along or around which the tiles are to fit. These dimensions are then transferred to and laid out on the tile to be cut.
- J. Install ramps per "INSTALLATION – RAMPS and Transitions" section above.

Maintenance

The following procedures are key in helping to preserve your turf:

I.	Keep it clean
II.	Brush periodically
III.	Do not abuse
IV.	Report any problems promptly

I. Keep it clean

1. Dust, pollen, and airborne pollutants

For lightly soiled areas, it may be necessary to use a rectangular microfiber mop with three (3) ounces of E-Cleaner per gallon of water. For heavily soiled areas, repeat procedure using a three (3) percent solution of household ammonia in warm water followed by a thorough rinsing with warm water. A wet vacuum can be used to remove excess water from the surface.

2. Stains and other blemishes

The first rule is promptness. It is always easier to clean up a fresh spill than one that has dried and hardened. Remove any solid or paste-like deposit with a spatula or table knife. Blot up excess liquids with paper towels, a clean cloth, or a dry absorbent, such as kitty litter or fuller's earth. Dry absorbents can then be vacuumed up afterwards.

Synthetic fibers have high resistance to staining. However, it is important to realize they are only one part of a sophisticated system of various components designed for overall performance. Some cleaning agents safe for the face fibers can be harmful to other components of the Turf system. Therefore, cleaning agents are grouped into two sets, one of which can be used in liberal amounts directly on the Turf surface, and the second of which should only be applied by rubbing a cloth lightly soaked in the cleaner in order to minimize penetration of possible harmful agents below the turf surface.

In the first group of cleaners, which generally can be applied without any special precautions are the following:

- A warm, mild solution of granular household detergent or any low sudsing detergent for fine fabrics. Use approximately one teaspoon to one pint of water. This will handle most waterborne stains including:

Coffee	Cola	Tea	Blood
Ketchup	Milk	Ice Cream	Urine
Mustard	Cocoa	Butter	Dye
Fruit juices	Vegetable juices	Glue	Latex paint

- A three (3) percent solution of ammonia in water may be used in lieu of household detergent for more stubborn stains.

- Do not use cleaners that contain chlorine bleaches or caustic cleaners (pH above 9) or highly acidic cleanses (pH below 5). Use only neutral cleaners such as E-Cleaner provided by ECORE Athletic.
- Rinse area thoroughly with clean warm water to remove any traces of soap or ammonia
- Blot up excessive liquid.

In the second group of cleaners, which must be applied sparingly and care taken to avoid penetration beneath the turf are the following:

- Mineral spirits or a grease spot remover like perchlorethylene (dry cleaning solution) of the type sold by most variety stores and supermarkets. In general, cleansers in this category should handle most oil-based stains including:

Asphalt	Motor oil & grease	Chewing gum	Lipstick
Tar	Suntan oil	Crayon	Nail polish
Shoe polish	Cooking oil	Ballpoint ink	Floor wax

Caution: Mineral spirits and other petroleum-based solvents are flammable. Do not smoke or permit open flames near where these are being used.

Be sure the area is well ventilated where solvent cleaners are used and remember to use sparingly.

3. Animal waste

Neutralize with mixture of white distilled vinegar in an equal amount of water. Flush thoroughly with water after application. And vacuum up excess solution with a wet vacuum.

4. Chewing gum

In addition to dry cleaning fluid, chewing gum can be removed by freezing. Aerosol packs of refrigerant are available from most carpet cleaning suppliers for this purpose, or dry ice can be used. After freezing, scrape with a knife.

5. Fungus or mold spots

A one (1) percent solution of hydrogen peroxide in water can be sponged on to the affected area. Flush thoroughly with clean water after application.

II. Periodic brushing

1. Matting of fibers may occur in areas of high foot traffic, especially if fibers have become soiled with dirt and other airborne pollutants.
2. Periodic "cross brushing" of the turf can help restore its aesthetic appearance. "Cross brushing" means all brushing activity takes place against the grain, nap, or sweep of the turf fibers. By brushing against the turf, the fibers are "fluffed up". A brush with synthetic

bristles should be used. Never use a brush with metal or wire bristles as these will change the turf fibers.

III. Do not abuse

Although turf is made of tough, durable fibers, certain precautions should be taken to prevent any damage.

- Lighted cigarettes cannot ignite the turf, but they can damage it by fusing the tips of the fibers together.
- Furniture and equipment with sharp or jagged edges should not be placed on turf as this may puncture or tear the turf.
- Water from sprinkler systems or hard water areas can leave mineral deposits that may cause discoloration.
- Do not expose turf to reflected sunlight as this may fuse the fibers together.

IV. Report any minor problem

Minor problems can become major problems quickly if not corrected. Any problem should be reported promptly to your dealer.

Remember that the proper care and maintenance program can enhance the aging, usefulness, and aesthetics of the turf.

Warranty

Ecore (the “Seller”) warrants that the Ultra-Turf Tile surface will be free from defects in materials and workmanship.

What does the warranty cover?

- Surface wear due to ordinary abrasion from pedestrian traffic will not penetrate the wear course of the surface.
- The tiles, when installed according to the manufacturer’s specifications, will ensure the surface remains fixed and functional.

How long does the warranty coverage last?

This is a 5 year limited warranty, prorated as outlined in the warranty coverage schedule shown below. This warranty may be transferred with the property.

What will we do?

Any segment of a tile surface that meets the warranty criteria will be repaired or replaced at the Seller’s option and in conjunction with the warranty coverage schedule below.

How do you submit a warranty claim?

A warranty claim should be made directly to the Seller. Make claims by calling 866.795.2732 or mailing info to 715 Fountain Ave., Lancaster, PA 17601. Please provide the following: original sales order, a description of the claimed defect and the date the defect was discovered, photos of the claimed defect, the date of the original installation, the project name and your name, address, and phone number. Seller will provide notification of additional information and physical evidence that may be required to process your claim.

Warranty Coverage Schedule:

The Seller shall be responsible for 100% of the purchase price of any product found to be defective or not in compliance with the warranty herein within the first year following the original shipment of the product. Where any product is found to be defective or not in compliance with the warranty herein more than 1 year following the original shipment of the product, the Seller shall only be responsible for a portion of the cost of the purchase price of such products as follows (and the buyer shall bear and pay the remaining portion of such costs):

<u>Number of years from date of original shipment to date of claim</u>	<u>Percentage of purchase price of product for which Seller is responsible</u>
<i>Up to 1 -----</i>	<i>100%</i>
<i>More than 1 and up to 2 -----</i>	<i>60%</i>
<i>More than 2 and up to 3 -----</i>	<i>40%</i>
<i>More than 3 and up to 4 -----</i>	<i>30%</i>
<i>More than 4 and up to 5 -----</i>	<i>20%</i>

Warranty Exclusions

This warranty does not cover:

- Differential fading due to light exposure, shading, pile crush, dye lot differences and soiling.
- Material installed with visible defect defects.
- Damage from any use for which the product was not designed, including weight drops or sleds or carts (pulling, pushing, or dragging, rope pulled objects) etc.
- The exact matching of shade or color.
- Any express or implied promise made by any salesman or representative.
- Tears, burns, cuts or damage due to improper installation, improper use or improper cleaning agents or maintenance methods.
- Labor costs for installation of original or replacement material.
- 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 Ecore makes no warranties whatsoever, express or implied with respect thereto, including warranties of merchantability or fitness for a particular purpose.
- Problems caused by moisture, hydrostatic pressure, or alkali in the sub-floor.
- Problems caused by uses, maintenance, and installation that are contrary to product specifications, recommendations or instructions.
- Material installed outdoors.
- Material that is not installed and maintained as recommended by Ecore.
- Damage to flooring products from pallet jack and tow-motor or vehicular traffic.
- 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.)
- Premature wear and deterioration from spikes or natural grass cleats.
- Differences in color between products and photography.

Additional Considerations:

- The Seller's liability is limited to the material and transportation costs of repair or replacement of the product at the Seller's option and will extend only for the time remaining under the original warranty. The Seller shall be responsible for installation costs and the costs of other work in connection with such repair and replacement only if such work was performed by Seller in the original installation. Where tile is installed only in high traffic areas or installed in combination with other surfacing products not sold by the Seller, such tiles are excluded from this warranty.
- The Seller reserves the right to discontinue or change any design or color of any products at any time and without notice or liability. If, for any reason, products of the type originally purchased are no longer available at the time a warranty claim is made, Seller may substitute another product determined by Seller to be of comparable quality and price.
- Your exclusive remedy for any breach of warranty is as set forth in this warranty. This warranty gives you specific legal rights. You may have other rights which vary from state to state and province to province. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



866.795.2732 – www.ecoreathletic.com

Manufactured in the U.S.A. by:



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