

Installation and Warranty

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Installation - Studio, Legacy and EONights

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

EONights, Legacy collection, Studio collection and ECOcomfort rolls and tiles may be installed over concrete, approved Portland based self-leveling materials such as Ardex K-15 or equivalent, and wood.

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 1/4" (6.35 mm), 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.

Subfloors Requirements and Preparations

A. Subfloor shall be dry, clean, smooth, level, and structurally sound. It 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).

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.

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 E-Grip IIITM 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 an IA 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 titled, "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. Moisture can also be measured using the RH Relative Humidity test method per the ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels are higher using either test method, then one of iBuildGreen's recommended vapor retardants must be used. If the emissions exceed the limitations, the installation should not proceed until the problem has been corrected.

NOTE: For moisture remediation, iBuildGreen recommends the following two vapor retardant products.

1. ARDEX MC Rapid, Plus or Ultra, www.ardex.com
2. Bostik Durabond D-250, www.bostik-us.com

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 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 laying down. Storing rubber on end will curl the edges, resulting in permanent memory of the material. Do not store rolls higher than 4 rolls or for more than 6 months.

All edges with memory curl should be straight cut before installation. In some instances it may be necessary to weigh down the seam until adhesive develops a firm set.

C. Inspect all material for visual defects prior to 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.

D. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.

NOTE: ECOsurfaces flooring is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to ensure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning installation.

E. All ECOsurfaces rolls must be unrolled and installed in the same direction (directional arrows are stamped on bottom of the rolls). ECOsurfaces tiles must also be installed in the same direction (arrows on the bottom must be pointing in the same direction). Rolls are labeled with batch numbers and roll numbers. Do not mix batch numbers together and install all rolls in consecutive order. (See diagram 1.)

NOTE: One side of each cardboard core containing ECOsurfaces rolls is marked with red dye. Unroll the flooring so that all of the cores have the markings on the same side.

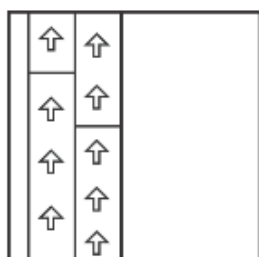


Diagram 1

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 - Roll Sheet 3.2mm and 6mm only. (8mm skip to bullet point G. item 2)

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 required overlap over the first roll at the seam. 48" wide rolls must be overlapped by 2" and 51" rolls must be overlapped by 5" minimum. **Failure to comply with required overlap could result in shade variance between rolls.**

IMPORTANT - Overlap amount is dependent upon the width of material provided. Please refer to seaming method diagrams for proper overlap amounts required.

E. Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

F. Allow the rough cuts to relax in position for a minimum of 2 hours before double cutting seams and applying the adhesive.

G. SEAMING METHODS 3.2mm and 6mm only. (8mm skip to bullet point G. item 2)

1. 1/4" (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.

NOTE: 48" wide rolls must be overlapped by 2" and 51" rolls must be overlapped by 5" minimum

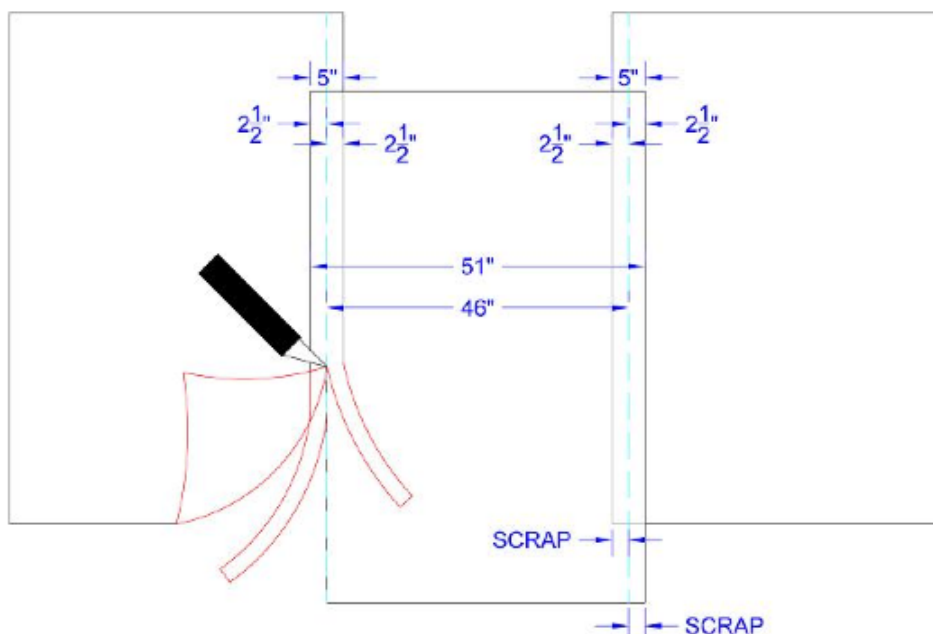


Diagram 2 - 51" Wide Rolls must be overlapped at a minimum of 5"

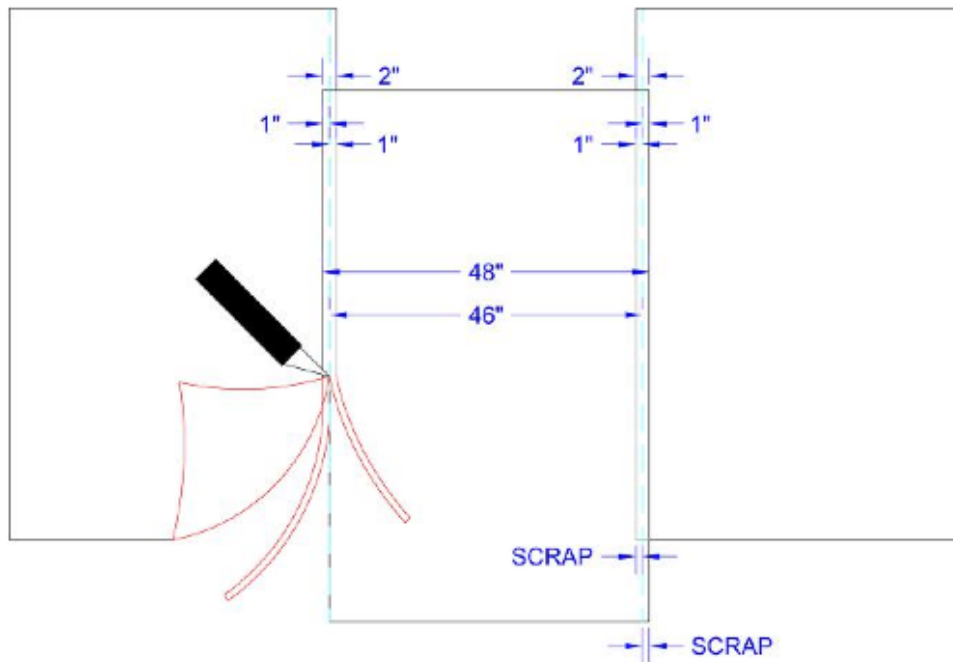


Diagram 3 - 48" Wide Rolls must be overlapped at a minimum of 2"

2. 8mm and thicker material:

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.

Remove the Everlast 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 a few inches.

If end seams are necessary, they should be staggered on the floor and overlapped approximately 3-6". End seams will be trimmed after acclimation period using a square to ensure they fit tightly without gaps.

Allow the rough cuts to relax in position for a minimum of two hours. 24 hours is preferred.

After allowing the flooring to relax you may begin the installation. Align the first edge to the chalk line.

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

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

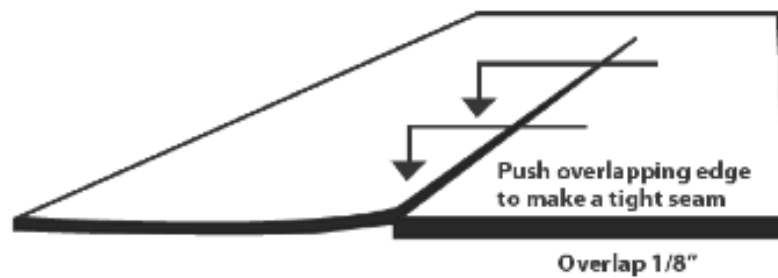


Diagram 4

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 1/4" could result in peaked seams.

Repeat for each consecutive sheet necessary to complete the area or those rolls that will be installed that day.

H. After all above procedures are performed, begin application of E-Grip III, making sure to use the proper recommended trowel size:

3.2mm – 1/16" x 1/32" x 5/64" U-Notched Trowel
6mm– 1/16" x 1/16" x 1/16" Square Notched Trowel
8mm– 1/16" x 1/16" x 1/16" Square Notched Trowel

I. Fold the first drop lengthwise (half the width of the roll).

J. Spread adhesive using the proper notched trowel. Take care not to spread more E-Grip III than can be covered by flooring and rolled within 30 minutes. The open time of the adhesive is 30 - 40 minutes at 700 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.

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 or 100 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. In some instances it may be necessary to weigh down the seam until the adhesive develops a firm set. Boxes of cove base or tile work well.

O. Continue the process for each consecutive drop. 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 E-Grip III 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.

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.

Q. Hand roll all seams after the entire floor has been rolled. If some seams are gapping it is possible to hold them together temporarily with blue painters tape. Tape should be removed after adhesive has developed a firm set (approximately 2-3 hours). Allowing tape to remain longer than 2-3 hours or using aggressive tapes may result in adhesive residue. iBuildGreen will not be responsible for residue left behind from tape of any kind.

R. After you've 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

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.

ECOsurfaces 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 be not be an exact match in shade or density. Every effort is made to ensure the best possible match; however, iBuildGreen makes no warranty on the exact match between dye lots.

ECOsurfaces tiles must be installed from the same product group, i.e. Studio Collection, Legacy Collection, EONights and ECOcomfort. Mixing multiple patterns may result in the installation to be thrown out of square. All tiles are marked on the bottom with arrows. Failure to install directionally will result in an out of square installation.

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.

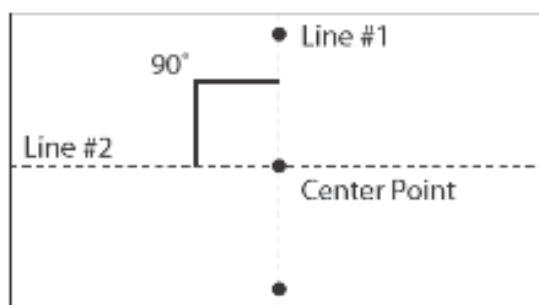


Diagram 5a

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 1/2 the width of the tile (12 inches). (See diagram 6.)

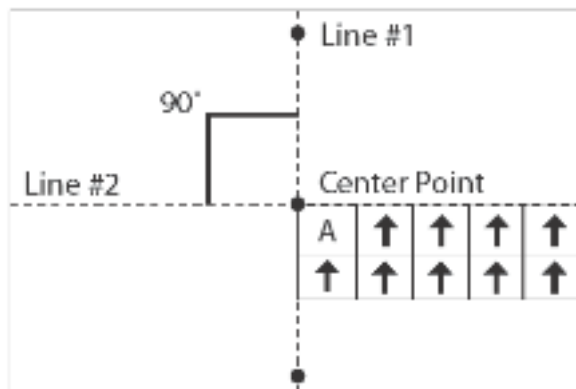


Diagram 5b

H. After all above procedures are performed, begin application of E-Grip III, making sure to use the proper recommended trowel size.

- 3.2mm – 1/16" x 1/32" x 5/64" U-Notched Trowel
- 6mm– 1/16" x 1/16" x 1/16" Square Notched trowel
- 8mm– 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.)

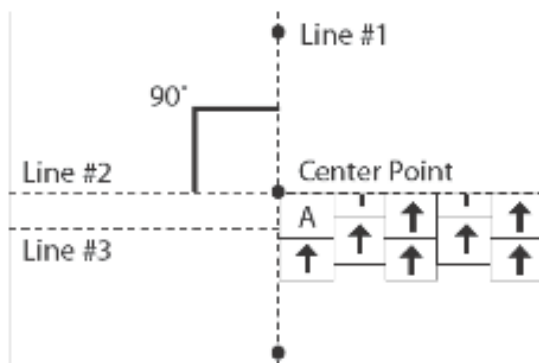


Diagram 6

Reminder: Arrows on bottom of tiles must point in the same direction.

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.

L. Do not allow E-Grip III 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 in gaps between the two original chalk lines and the wall on those two sides.

O. If some seams are gapping it is possible to hold them together temporarily with blue painters tape. Tape should be removed after adhesive has developed a firm set (approximately 2-3 hours). Allowing tape to remain longer than 2-3 hours or using aggressive tapes may result in adhesive residue. iBuildGreen will not be responsible for residue left behind from tape of any kind.

P. Roll a 75 lb or 100 lb roller over the floor within 45 minutes 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. 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.

Installation - ECOcomfort

Installation Under ECOsurfaces

Please contact Vendor Technical Department for details pertaining to this type of installation (1-800-322-1923).

Installation Under Carpet

1. COMPLETE GLUE-DOWN

- a. Install ECOcomfort on sub-base following sheet installation instructions.
- b. Adhere carpet to ECOcomfort using carpet manufacturer's recommended adhesive or tape.

2. INSTALLATION WITH (WALL-TO-WALL) TACK STRIPS

- a. Install tack strips.
- b. Install ECOcomfort up to strips.
- c. Install carpeting over ECOcomfort following carpet manufacturer's recommended wall-to-wall installation instructions.

Important Information for the Specifier

iBuildGreen recommends E-Cleaner, E-Strip, and E-Finish Maintenance Products and Procedures for ECOsurfaces.

Proper protection and maintenance of ECOsurfaces post-installation should be specified by the architect/designer. ECOsurfaces should not be subject to construction debris and potential damage caused from heavy duty construction activities. The specifier should determine and assign the specific type of cleaning and products dependent on the type of material being installed.

Installation - ECOmax

RECOMMENDED INSTALLATION METHODS FOR 1" AND 2-1/2"

INTERIOR INSTALLATION					EXTERIOR INSTALLATION				
	24" x 24" x 1"		24" x 24" x 2-1/2"			24" x 24" x 1"		24" x 24" x 2-1/2"	
Surface	Dowels	Full Glue	Quad Blok	Full Glue	Surface	Dowels	Full Glue	Quad Blok	Full Glue
Concrete	☐	Δ	☐	☐	Concrete	N/A	☐	Δ	☐
Asphalt	☐	Δ	☐	☐	Asphalt	N/A	☐	Δ	☐
Plywood	☐	☐	☐	☐	Compact Gravel ¹	N/A	N/A	☐	Δ
Compact Gravel ¹	N/A	N/A	☐	Δ	Wood or Tile	N/A	☐	Δ	☐
Wood or Tile	☐	N/A	☐	N/A	Resilient Flooring	N/A	☐	Δ	☐
Resilient Flooring	☐	N/A	☐	N/A	Indoor/Outdoor Carpet	N/A	N/A	Δ	☐
Carpet	☐	N/A	☐	N/A	Rooftops	N/A	N/A	☐	N/A

☐ = RECOMMENDED N/A = NOT AN APPROVED INSTALLATION METHOD Δ = ACCEPTABLE

1. Geo-textile fabric must be used over Compact Gravel

TOOLS/MATERIALS REQUIRED

- Two tape measures - 25' and 50'
- Chalk line
- Saber saw (Jig saw)
- Blades for saber saw (7-10 teeth per inch, wood type)
- Utility knife with heavy-duty blades
- Framing square/metal straightedge
- Silver or gold color paint pencils
- Standard size caulk gun
- 4" slot blade screwdriver
- Notched trowels -1/8" square notch [outdoor] or 1/16" square notch [indoor]; 2 minimum plus 1 for each additional 400 sq. ft.
- Safety glasses
- 1-1/2" flexible putty knife
- Coveralls
- Kneepads
- Solvent safe rubber gloves, long cuff style
- Rags
- Trash bags
- Push broom or high velocity blower
- Mineral spirits to clean mixing blades
- Installation instructions
- String line
- Cutting table (shipping pallet)
- Dustpan
- 2-3 lb. hand sledge hammer or rubber mallet

Site Work

NOTE: Dimensional tolerance for tiles is +/- 1/8." 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

1. On grade installation - The finished installed height of the ECOmax 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 installation of ECOmax over existing decks or slabs is referred to as "above grade installation" and will usually require the use of reducers around the perimeters of the area to transition smoothly back to the floor elevation, unless the site terminates at a wall or other vertical surface.

B. Site Slope/Drainage

1. When preparing a new hard base, a minimum slope equal to 1" per 10' of run shall be applied to the finished surface with slope toward the drain basin, drain trough, or down grade side of the site whichever applies to your project.
2. An acceptable drainage system needs to be put in place to eliminate standing water.

Base Options

A. Hard Base Construction

1. Concrete Base

a. The base will be constructed of cast-in-place, non-structure, Class A concrete that will develop a minimum compressive strength of 3,000 PSI after 28 days cure (minimum thickness = 4"). Care should be taken to provide for the stated slope. The base should be free of depressions that would pond water. A light broom finish is best for maximum adhesion of the ECOmax tile. New concrete slabs should cure for a minimum of 28 days before installing ECOmax.

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 subgrade 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).

Analysis of Asphalt Wear Course

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 ECOMax system is laid.

B. Preparation of Compacted Loose Base: (2-1/2" ONLY)

1. In outdoor areas or areas with no walls or confines, a perimeter footer will need to be constructed to contain the compacted loose base. The concrete footer is typically 6" x 18" with the top of the footer having a light broom finish.
2. The area inside the footer should be excavated to receive 6" of loose aggregate fill. The amount of excavation and fill can be adjusted to allow the 2-1/2" ECOMax and footer finished surfaces to have the same elevation.
3. By adding fill material and compacting to the top of concrete footer, the 2-1/2" ECOMax tile can be laid over the top of the footer, concealing it if so desired.
4. In all loose base areas, the base should be constructed of 6" of compacted limestone screenings mixture or equivalent aggregate common to your area. A screenings mixture is one having no aggregate larger than 3/8" and should conform to the following sieve analysis.

Loose Aggregate Base Material Limestone Screenings Sieve Analysis (AASHO T10)

Total Passing Sieve	Percent By Weight
3/8"	100
#4	85-100
#100	10-30

5. Once the loose base has been installed and has achieved 95% compaction to the desired elevation, cover the entire area with geo-textile fabric including the top of the footer where the 2-1/2" ECOMax extends over the footer. The minimum infield overlap of successive geo-textile sections is 4". The geo-textile should be adhered to the top of the footer on all sides to anchor the mat and keep it in place throughout the life of the installation.

Installation ECOmax 1" Interior

General Information

A. 1" ECOmax may be installed over most concrete, wood, tile, or carpeted floors. The floor over which 1" ECOmax is installed must be level, in good condition, and clear of dirt and loose debris.

B. For installations requiring adhesion to concrete, maximum moisture vapor emission of the concrete must not exceed 5.5 lbs. per 1000 sq. ft. in a 24 hour period as measure by the calcium chloride moisture emission test conducted in accordance to ASTM F1869. Moisture can also be measured using the RH Relative Humidity test method per ASTM F2170 standard. Moisture content should not exceed 85% RH. If levels are high using either test method, then one of iBuildGreen recommended vapor retardants must be used. If the emissions exceed the limitations, the installation should not proceed until the situation has been corrected.

C. If 1" ECOmax is being installed wall-to-wall, the tile may be doveled together, with the walls serving to contain the outer rows of tile. Tiles which are not contained by walls, either at openings in the wall (i.e. doorways) or freestanding, should be contained by adhering the outer tiles and 1" ECOmax ramps around the outer perimeter. The adhered tile and ramps provide a transition from the 1" thick tile to the original floor level. The perimeter tiles and ramps should be adhered using E-Grip™ III adhesive with a 1/16" square notched trowel indoors over substrate.

D. Installation should not begin until after all other trades are finished in the area.

E. 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.

F. 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.

NOTE: Dimensional tolerance for tiles is +/- 1/8." From time to time during installation, it may be necessary to measure and hand select tiles to assure 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 adjust as necessary.

NOTE: ECOsurfaces flooring is manufactured from recycled materials and some variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to ensure the correct style, thickness, and color. Any visual discrepancies should be reported immediately before beginning installation.

Site Layout

- 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. 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.
- C.** 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.
- D.** Snap a chalk line through the established points.
- E.** Measure the length of the site along the chalk line. Mark a point at half the distance of the site.
- F.** 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.
- G.** Dowel placement - Insert a dowel pin in each of the three dowel holes on two adjacent sides of the tile. Tap the dowel into the molded hole until the length of the dowel is showing beyond the edge of the tile. Install dowels in enough tiles in this manner to lay one course line.

Laying Tile for Starter Course

- A.** Place the first doweled tile at the intersection of the chalk lines with one doweled side facing inward along the course line.
- B.** Join the next tile in the starter course to the original tile by pushing it against the original tile, engaging the dowel holes in the second tile with the dowels in the original tile.
- C.** The assembly of tiles using dowels is a two-man job, with one man working always on top of the last tile laid to secure it while the other worker is applying force to the tile being laid.
- D.** Continue to assemble tiles in this manner until the row has been completed across the entire course.
- E.** A small 2-3 lb. hand sledgehammer may be used to aid assembly by striking the tile close to the doweling point while pressure is applied to the tile in the direction of the doweling by the second workman. A sledge and 2 x 4 may be used to tightly dowel several tiles. These techniques will allow the tile edges to be butted tight together.

Laying the Second and Subsequent Tile Course

- A.** Place dowels in the tile to be used for the second course as done previously. Join the first tile in the second course to the first tile in the first course.

B. The second tile in the second course is now ready for placement. This tile will be doweled on two sides. First, dowel the tile to the original tile in the second course, placing the dowels from the first course of tiles above the tile being doweled.

C. Now dowel the second side of the tile by lifting the tiles to be joined together and inserting one dowel at a time with the appropriate dowel hole.

D. Continue to assemble tiles in this manner until the row has been completed across the entire course. Complete the third and subsequent courses in a similar manner.

Fitting the Outer Course Tile

A. In most wall-to-wall installations, the tile 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 for infield use.

B. The outer course should then be installed as described in item C above, utilizing the remaining dowel holes. The cut edge should face the wall.

Adhering the Outer Course and Ramps

A. If required, ramps can be cut in the same manner as tile. If ramps are used at a corner, each ramp should be miter cut at a 45° angle.

B. After ramps have been properly cut, ramps and outer tile, which are not contained by walls, should be adhered to the existing floor using E-Grip III adhesive with a 1/16" square notched trowel indoors over substrate. Set tiles and ramps in the adhesive bed. Tiles being set in the adhesive bed should be doweled to the next inner course of tiles, but need not be doweled to each other. Ramps need not be doweled.

C. For areas where adhering a ramp is not an option you may edge adhere the side heel of the reducer to the side of the tile and/or drill dowel holes in the side heel of the reducer to match the existing dowel holes in the tile.

1. When drilling dowel holes, the holes should be 1/4" in diameter and 1.75" deep.

2. Adhesive should be allowed to cure for 24 hours before walking on the tile.

D. Your 1" ECOmax installation is now ready for use and will provide years of reliable, low maintenance performance. If you have questions about installation techniques or anything else regarding 1" ECOmax, call Gerbert Ltd. at 1-877-326-7873.

Installation ECOMax 1" EXTERIOR

General Information

NOTE: 1" ECOMax is not recommended for rooftop applications.

- A.** 1" ECOMax tile may be installed outdoors over existing asphalt & concrete surfaces using E-Grip III adhesive and a 1/8" square-notched trowel.
- B.** Full adhesion of 1" ECOMax tiles and accessories to the substrates described in the following and in Base Preparation is the only recommended method for outdoor installation of 1" ECOMax.

Site Layout - Fully Adhered

- A.** Sweep area clear of all dust and loose debris.
- B.** Determine a starting point for the first course of tile that best suits the site area. For irregular site configurations, the best starting point is often in the center of the area. This ensures a symmetrical finish for tiles that required cutting along the perimeter. Other installations are best started in a corner or along one edge that represents the length or width dimension of the site.
- C.** Mark two points on the base surface at an equal distance from the edge of the installation.
- D.** Snap a chalk line through the established points.
- E.** Measure the length of the site along the chalk line. Mark a point on the chalk line at half this distance.
- F.** Using the 3-4-5 right triangle method or a carpenter's square, snap a chalk line through this point at 90° to the previously established lengthwise course line. These perpendicular reference lines will serve as a guide for laying the first course of tile.

Adhering Tiles to Base

- A.** The following method of installation of 1" ECOMax tiles and accessories may be used over concrete or asphalt. The tiles, accessories, and substrate must be dry before and during the application of adhesive.
 - B.** Follow the Site Layout instructions to prepare the site area for installation. The tiles, accessories and substrates must be dry before, during, and 24 hours after the application of adhesive.
- NOTE:** Coverage rates for the E-Grip III adhesive are approximately 60 sq. ft./gal. on concrete and 50 sq. ft./gal. on asphalt using a 1/8" square notch trowel. E-Grip III is available in 2 and 4-gallon pails.
- C.** Using a 1/8" square-notched trowel apply the E-Grip III adhesive slightly wider than the tile being placed. Place tile into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive bed in a similar manner.
 - D.** Allow 24 hours for adhesive to cure before opening area for use.

NOTE: Although ECOmax tiles contain UV-resistant EPDM, an initial ambering of this product in outdoor environments is normal. Tile color will stabilize and return to their initial hue within 2-3 weeks.

NOTE: ECOsurfaces flooring is manufactured from recycled materials and slight variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to ensure the correct style, thickness, and color. Any moderate to severe discrepancies should be reported immediately before beginning installation.

Cutting 1" ECOmax Tile and Ramps

A. Avoid leaving a cut edge of a tile exposed to eyesight. To guarantee a finished appearance, any tile that has its factory molded, radiused edge removed for any reason should be backed along that edge using a 1" ECOmax transition ramp, masonry or timber edging unless that edge is to be placed against a wall or other vertical member.

B. The most accurate cuts in tiles are made using a heavy-duty utility or carpet knife and a straight edge. A saber saw utilizing a 7-10 TPI wood cutting blade also does an acceptable job, especially for radiused 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. A cutting table used to support the work is required during cutting. A standard shipping pallet works well for infield use.

C. 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.

D. Layout lines are recommended to be made using a permanent marking pen, silver grease pencil, paint type marking pen, or carpenter's pencil.

E. Ramps installed at corners should be miter cut to allow ramps to fit together properly.

Installation ECOmax 2-1/2" Interior & Exterior

General Information

A. 2-1/2" ECOmax may be installed using a variety of installation methods. The most common and secure method is a full-spread adhesion of tiles and accessories to the substrates using E-Grip III, an easy-to-use one part polyurethane adhesive.

NOTE: Dimensional tolerance for tiles is +/- 1/8". 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.

NOTE: For 2-1/2" ECOmax rooftop and specialty applications, iBuildGreen recommends the use of ECOsurfaces' exclusive fastening system called Quad Blok™. Tiles are adhered to the Quad Blok connector, eliminating potential damage to the roof membrane.

NOTE: ECOsurfaces flooring is manufactured from recycled materials and some variance in shade and color chip dispersion is normal. It is the installer's responsibility to inspect all products to ensure the correct style, thickness, and color. Any visual discrepancies should be reported immediately before beginning installation.

Site Layout

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. 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.

C. 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.

D. Snap a chalk line through the established points. When installing 2-1/2" ECOmax over a geo-textile fabric string lines must be used in place of chalk lines.

E. Measure the length of the site along the chalk line. Mark a point at half the distance of the site.

F. 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.

Fully Adhered Installation

A. Follow the site layout instructions to prepare the site area for installation. The tiles, accessories, and substrates must be dry before, during and 24 hours after the application of adhesive.

NOTE: Coverage rates for the E-Grip III adhesive are approximately 60 sq. ft./gal. on concrete and 50 sq. ft./gal. on asphalt using a 1/8" square notch trowel. E-Grip III is available in 2 and 4-gallon pails.

B. Using a **1/8" square-notched trowel** apply the E-Grip III adhesive out slightly wider than the tile being placed.

C. Place tiles into the fresh adhesive bed following pre-established course lines. If applicable, place ramps into the fresh adhesive in a similar manner.

D. Adhesive should be allowed to cure for 24 hours before the tiles are used.

NOTE: Although ECOmax tiles contain UV-resistant EPDM, an initial ambering of this product in outdoor environments is normal. Tile color will stabilize and return to its initial hue within 2-3 weeks.

Quad Blok Installation

NOTE: Installation by means of the Quad Blok system is only recommended for 2-1/2" ECOmax tiles.

A. Follow the Site Layout instructions to prepare the base for the installation of 2-1/2" ECOmax 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 3/8" diameter bead of E-Grip III adhesive along the center axes of all Quad Blok connectors. Working adhesive time is dependent upon environmental conditions (see diagram 7).

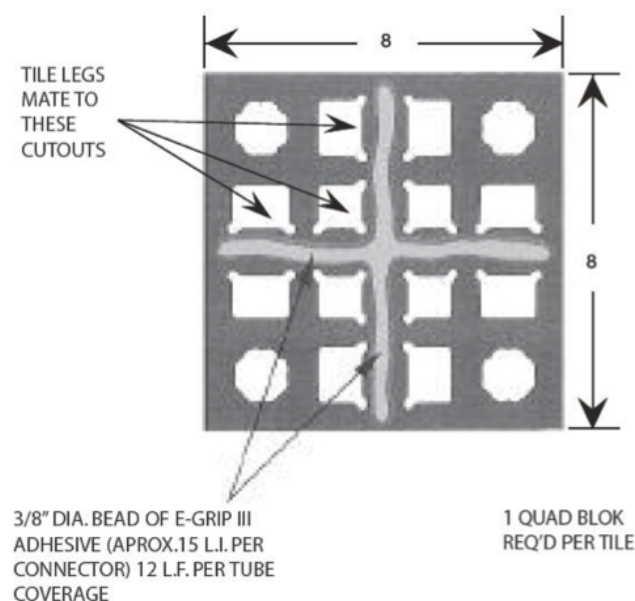


Diagram 7

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 (see diagram 8).

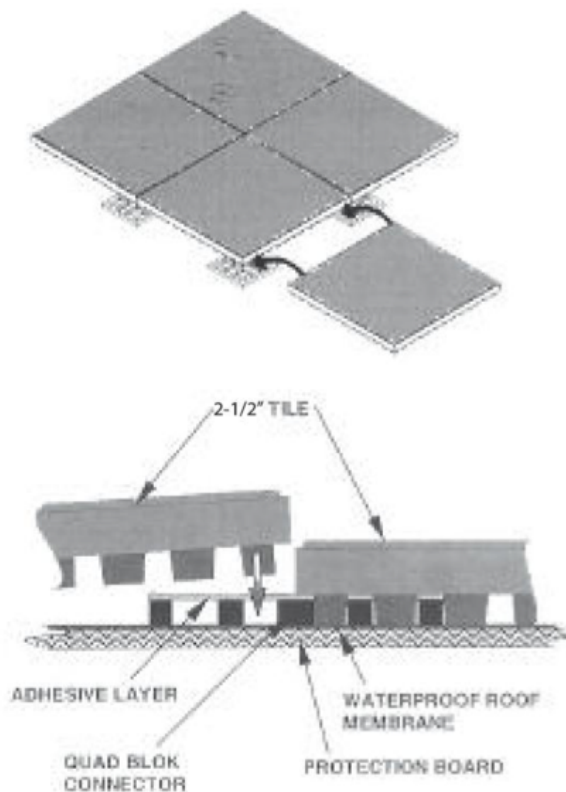


Diagram 8 - Typical tile field placement

NOTE: In the field, cut the Quad Blok connectors in half to properly secure tile around the perimeter edge of surface area. The most accurate cuts are made using a utility knife and straightedge.

E. Complete the other three quadrants of the roof deck in a similar fashion.

F. Depending on manpower availability, one or more quadrants can be worked on simultaneously using the above method.

G. Allow 24 hours for adhesive to cure before opening area for use.

Cutting 2-1/2" ECOmax Tile and Ramps

A. Avoid leaving a cut edge of a tile exposed to eyesight. To guarantee a finished appearance, any tile that has its factory molded, radiused edge removed for any reason should be backed along that edge using a 2-1/2" ECOmax transition ramp, masonry, or timber edging unless that edge is to be placed against a wall or other vertical member.

B. The most accurate cuts in tiles are made using a heavy-duty utility or carpet knife and straightedge. A saber saw utilizing a 7-10 TPI wood cutting blade also does an acceptable job, especially for radiused or free-form cuts. A saw with 3-3.5 amps 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 infield use.

C. Tile cuts are normally laid out by referencing dimensions from the edges of tiles already in position. These dimensions are then transferred to and laid out on the tile to be cut.

D. Layout lines are recommended to be made using a permanent marking pen, silver grease pencil, paint type marking pen, or carpenter's pencil.

E. A lead-in cutting line is extended from the tile edge to the portion to be cut. The lead-in cutting line chosen usually represents the shortest distance from the cutout area to an edge of the tile, or the one that is least noticeable.

F. Ramps installed at corners should be miter cut to allow ramps to fit together correctly, or use factory molded corner pieces available for 2-1/2" thick ECOmax.

Garanti

Alla iBuildGreen golv är garanterade av iBuildGreens leverantörer att vara fri från tillverkningsdefekter på både material och yrkesskicklighet. Om sådana defekter upptäcks, så måste kunden meddela iBuildGreen antingen genom kontrakterad installatör, distributör eller direkt till iBuildGreens kundkontakter. Om upptäckt av defekt sker inom fem år under normala, icke felaktigt nyttjande, så är den enda compensationen som kan ställas mot säljaren att byta ut eller reparera den defekta delen av produkten.

ECOsurfaces garanti täcker inte missnöje på grund av otillbörlig installation, normalt slitage eller kvalité från installation förväntad från användning eller installationsmiljö, skada från otillbörligt underhåll eller användning samt generellt missbruk, inkluderande och utan begränsning: brännskada, skåra, rispa, skrapande, skavande, skada från rullande laster, skada från rengöringsprodukter som inte rekommenderats av iBuildGreen, lätta nyansvariationer eller nyansvariationer på grund av exponering för direkt solljus eller skillnader i färg mellan prover eller fotografier och det faktiska golvet.

Exkluderat från Garanti

Dessa garantier är ej tillämpliga till följande:

1. Exakt matchning av nyans, färg eller mönster.
2. Varje uttryck eller implicerat löfte gjort av en säljare eller representant.
3. Reva, brännmärke, skåra eller skada på grund av otillbörlig installation, otillbörlig användning, eller otillbörlig rengöringsprodukter eller underhållsmetoder.
4. Slitage från stolar eller annat möblemang utan ordentligt golvbeskydd kommer upphäva garantin. Omsorg ska beaktas för att skydda golvet från skada genom att använda beskyddande fötter av god kvalité för stolar, bord och annat möblemang. Underlägg för stol kan krävas för stolar med hjul.
5. Arbetskostnad för installation för original- eller utbytt material.
6. Realisation av "andra hand", "utförsäljning" eller andra irreguljära (icke-första-kvalité) golvmaterial. Avseende "andra hand" eller "utförsäljning", så är sådant material sålt i "befintligt skick" och ECOsurfaces ger inga garantier alls, direkta eller implicerade med hänsyn till detta, inkluderat garantier för köpvärde eller lämplighet ämnat för ett specifikt syfte.
7. Problem orsakade av fukt, hydrostatiskt tryck eller alkalier i underlager/undergolv.
8. Problem orsakade av användning, underhåll eller installation som motsätter ECOsurfaces specifikationer, rekommendationer eller instruktioner.
9. Material installerad med uppenbar defekt.
10. Skada på golvprodukter från höga klackar eller spikklackar.
11. Skada eller missfärgning av golvprodukter från gummimattor, mattor med undersida av gummi eller bildäck.
12. Installation av ECOsurfaces produkter med klister/fogmassa annan än det som rekommenderas av ECOsurfaces.
13. Blekning och/eller missfärgning som resultat av direkt eller glasfiltrerad exponering mot kraftigt solljus penetration och ultravioletta strålar.

14. Material som inte är installerad eller underhållen så som rekommenderad av ECOsurfaces.
15. Skada på golvprodukter från lastpallstruck och trafik med motorsläp.
16. Miljöer där produkten kommer att exponeras för djurfett, vegetabiliska oljor, flott eller petroleum baserade material (t.ex. kommersiella kök eller bilverkstad).
17. För tidigt åldrande och förfall från exponering mot spikar och skridskoblad.
18. Skillnader i färg mellan produkt eller fotografi.
19. Avvikelse i densitet (buckling) mellan produkt och prover/fotografi.

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