



ECOfit & ECOfit Plus Rolls

TECHNICAL MANUAL

Installation • Maintenance • Warranty

Manufactured in the U.S.A.

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Supersedes all previous versions.
Check website for updates.

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I. 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.

II. SUBFLOORS

ECOfit and ECOfit Plus rolls may be installed over concrete, approved Portland based self-leveling materials, and wood.

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

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

- 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", with a fully sanded face.

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

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

III. SUBFLOOR REQUIREMENTS AND PREPARATION

- 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 Portland 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 Portland 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 III™ 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. 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.

- E-Grip III – RH limit of 85% – 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.

- H. 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.
- I. Perform pH tests on all concrete floors. If greater than the allowable limit of the selected adhesive, neutralize prior to installation.
- J. Adhesive bond tests should be conducted in several locations throughout the area. Glue down 3’ x 3’ test pieces of the flooring with the recommended adhesive and trowel. Allow to set for 72 hours before attempting to remove. A sufficient amount of force should be required to remove the flooring and, when removed, there should be adhesive residue on the subfloor and on the back of the test pieces.

IV. MATERIAL STORAGE AND HANDLING

- A. Material should be delivered to the job site in its original, unopened packaging with all labels intact.
- B. 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.
- C. Material should only be stored inside and 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.
- D. 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.
- E. **Inspect all materials for visual defects before beginning the installation. No labor claim will be honored on material installed with visual defects. Verify the material delivered is the correct style, color, and amount. Any discrepancies must be reported immediately before beginning installation.**
- F. The material and adhesive must be acclimated at room temperature for a minimum of 48 hours before starting installation.

V. INSTALLATION PREP

- A. Rolls must be unrolled and installed in the same direction (**Directional arrows are stamped on bottom of the rolls; see Figure 1.**) Rolls are labeled with batch numbers and roll numbers. Do not mix batch numbers together and install all rolls in consecutive order. Laying rolls in the opposite direction and out of sequence **can** cause color variations between the rolls.

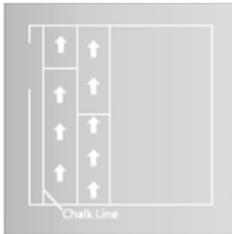


Figure 1

- B. Note: Custom roll lengths eliminate the possibility of the rolls being manufactured and numbered in the customer's desired installation sequence, and ECOsurfaces cannot be responsible for any resulting shading issues.
- C. Roll material is stretched slightly when it is rolled at the factory. Unroll all rolls and allow to relax for a minimum of two hours before gluing or cutting material. Shaking the material once unrolled can help it to relax.
- D. Snap a chalk line where the first seam will be located. Straight cut the edge of the first piece if required. Align the first roll factory edge to the chalk line.
- E. Straight edge the second lineal drop if the first lineal drop is not long enough to span the entire length or width of the room. If end or head seams are necessary, they should be staggered on the floor and overlapped approximately 3-6".
- F. Position second row with no more than 1/8" overlap over the first roll at the seam (see Figure 2). After adhesive is applied to the 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 seams. Over compressed seams will cause peaking.



Figure 2

- G. Repeat for each consecutive roll to be installed that day.

VI. INSTALLATION

- A. After all above procedures are performed, begin application of the adhesive. Apply E-Grip III to the substrate using a 1/16" square notched trowel.
- B. Fold the first drop lengthwise (half the width of the roll).
- C. Spread adhesive, taking 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 70°F and 50% relative humidity.

- D. NOTE: Temperature and humidity affect the open time of the adhesive. Temperatures above 70°F and/or relative humidity above 50% will cause the adhesive to set up more quickly. Temperatures below 70°F and/or relative humidity above 50% will cause the adhesive to set up more slowly. The installer should monitor the on-site conditions and adjust the open time accordingly.
- E. 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.
- F. 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.
- G. Immediately roll the floor with a 75–100 lb. roller to ensure proper adhesive transfer. Overlap each pass of the roller by 50% of the previous pass to ensure the floor is properly rolled. Roll the width first and then the length. Roll again within the first 60 minutes. It may be necessary to weigh down the seams 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.
- I. Do not allow E-Grip III to cure on your hands or the flooring. We strongly suggest wearing gloves when using E-Grip III.
- J. Immediately wipe off excess adhesive from floor with a rag dampened with mineral spirits! Cured adhesive is very difficult to remove. Then wipe off the mineral spirits with a rag damp with water.
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.
- K. Hand roll all seams after the entire floor has been rolled. If some seams are gapping, hold them together temporarily with blue painter's tape. Do not use duct tape as it may leave a residue on the floor. Remove tape after adhesive has developed a firm set (approximately 2-3 hours). ECOsurfaces will not be responsible for residue left behind from tape of any kind.
- L. Keep foot traffic off the floor for a minimum of 24 hours. Floor should be kept free from rolling loads for a minimum of 48-72 hours. Foot traffic and rolling loads can cause permanent indentations or bond failure in the uncured adhesive.

Maintenance

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 Bounce 2 published procedures.

ECOsurfaces recommends our environmentally friendly line of maintenance products.

It is the General Contractor's responsibility to provide:

A building or installation area that is fully enclosed from the elements, including 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.

Cleaning Procedures – ECOfit & ECOfit Plus Coated with ECOguard

Steps	Green Products	Dilution	Tools / Pads
Initial Cleaning	E-Cleaner	10 oz / Gal Water	Soft Nylon Brush, 3M 4100 White or 4200 Beige pad or equiv., or Microfiber Mop
Daily/Weekly Clean	E-Cleaner	2-4 oz / Gal Water	Soft Nylon Brush, 3M 4100 White or 4200 Beige pad or equiv., or Microfiber Mop
Heavy Soil	E-Cleaner	10 oz / Gal Water	Soft Nylon Brush, 3M 4100 White or 4200 Beige pad or equiv. or Microfiber Mop
Restorative Stripping	E-Strip	16 oz/ Gal Water	3M Black 7200 or Brown 7100 or equiv.

A. Initial Cleaning

NOTE: Adhesive should have 24 hours minimum to cure before cleaning the floor.

1. Remove all surface soil, debris, sand, and grit by sweeping or vacuuming.
2. Scrub floor with the recommended E-Cleaner, using a buffer or auto scrubber with tool / pad from table above. We recommend a 175 RPM buffer or auto scrubber. If soil is minimal, a microfiber mop may be used.
3. Pick up remaining residue with a wet vac and damp mop floor. Allow floor to thoroughly dry.

B. Daily/Weekly Cleaning

1. Remove all surface soil, debris, sand, and grit by sweeping or vacuuming.
2. Damp mop or scrub floor using the recommended E-Cleaner or equivalent with tool / pad from table above.
3. Clean remaining residue from floor with a wet vac and damp mop floor. Allow floor to dry thoroughly.

C. Heavy Soil Cleaning

1. Remove all surface soil, debris, sand, and grit by sweeping or vacuuming.
2. Scrub floor using the recommended E-Cleaner with tool / pad from table above. Follow "Dilution" above.
3. Pick up remaining residue with a wet vac and damp mop floor. Allow floor to dry thoroughly.

Note: If area is too small for a buffer or auto scrubber, a nylon deck brush may be used to remove scuff marks or heavy soil. Brush should be approximately 22 gauge.

CAUTION – A “standard” black pad should be the most aggressive pad used and only for restorative maintenance purposes. A high productivity black pad such as 3M’s 7300 series will act as a sander and damage the surface of the rubber. ECOsurfaces assumes no liability in the event of damage to the rubber in the removal process. ECOguard is considered a permanent sealer and not intended to be stripped from the rubber as a standard procedure. This procedure is for restorative maintenance purposes only.

IMPORTANT MAINTENANCE TIPS

- Use high CFM vacuum to pick up dust.
- Wait for floor to dry thoroughly before applying floor finishes, usually 24 hours.
- Apply only thin coats of floor finishes and use a microfiber finish mop.

Note: If area is too small for a buffer or auto scrubber, a nylon deck brush may be used to remove scuff marks or heavy soil.

D. ECOguard Clear Coat Sealer Procedures

ECOguard is a water-based, clear, polyurethane maintenance coat. ECOguard is formulated for interior applications.

Tools / Materials Required

Safety Glasses	18" stir sticks
Latex or Rubber Gloves	Drill
21" paint tray or rectangular mop bucket for sealer	Rags
Applicator Trim Pads	Microfiber Mop
Safety / utility knife	Microfiber Mop Cover
Trash bags	Paint mixer paddle

Surface Preparation

- An improperly prepared surface can act as a bond breaker and result in a project failure. It is important to remove all dirt, grease, wax, oil, paint or other contaminants before applying the ECOguard. ECOguard can be applied over the existing factory applied finish after all construction debris and soil have been removed from the surface.

Precautionary Measures

- Allow ECOguard to cure for 24 hours before introducing foot traffic.
- Allow ECOguard to cure for 48 hours before cleaning, rolling chairs or dollies.
- If traffic and/or rolling loads need to be introduced earlier than listed above, the surface must be protected from damage.
- Remove ECOguard spills and drips immediately from other surfaces before dry.
- Do not re-use microfiber pads after applying ECOguard.
- Seal floor in one step rather than in sections for best results.
- If sealer dries on microfiber pad, replace with new microfiber pad.
- Sealer will obtain full strength in 5-7 days. Care should be taken during the first 5-7 days to prevent damage to the coating. Extra coats will extend the curing cycle.
- String mops or other unapproved applicators may result in a poor application of the sealer and complete removal may be required.
- Work from one side of the room to the other using a scrubbing motion with microfiber mop keeping a wet edge.

Application Methods

1. **Application of ECOguard Over Uncoated ECOsurfaces**
2. **Application of ECOguard Over Existing ECOguard**
3. **Removal / Stripping of ECOguard Sealer**
1. **Application Of ECOguard Over Uncoated ECOsurfaces**
 - **IMPORTANT! Stir the ECOguard thoroughly for 3-5 minutes or until all sediment at bottom of pail is mixed up into solution before application to ensure consistent sheen**
 - Safety glasses should be worn when mixing, pouring or applying ECOguard.
 - Apply first coating of ECOguard to the rubber surface using the recommended Microfiber Mop. An applicator trim pad may be used for areas around the perimeter.

Additional one to two coats are recommended, and an ample amount of time is required between coats. Allow each coat to dry thoroughly to touch before applying the next coat, about 2 - 4 hours.

- Over unfinished rubber the coverage rate is approximately 400-500 sq ft per gallon. Second and Third coat coverage approximately 600-800 sq ft per gallon.
- Apply ECOguard when surface temperature is 65 degrees Fahrenheit or higher and maintained for 72 hours before and after installation.
- Wear rubber or latex gloves when applying the ECOguard. Sealer will not harm the skin but is difficult to remove once it dries. Wash hands immediately after contact with ECOguard with soap and water.
- Allow ECOguard to cure for 48 hours before cleaning the surface.

2. Application Of ECOguard Over Existing ECOguard

- **IMPORTANT! Stir the ECOguard for 3-5 minutes or until all sediment at bottom of pail is mixed up into solution before application to ensure consistent sheen.**
- Factory coated product should not require additional field coats. Should an additional coat be requested, one should suffice.
- Prepare surface and remove all dirt, grease, wax, oil, paint, construction debris or other contaminants before re-applying the ECOguard. Clean the surface thoroughly with a buffer or auto scrubber using a 3M 5100 Red or equivalent pad. Keep in mind that these pads will slightly abrade the finish and continued use will remove the sealer. Slightly abrade the finish creates an acceptable surface on which to apply the new finish coat.
- Safety glasses should be worn when mixing, pouring or applying ECOguard.
- Wear rubber or latex gloves when applying the ECOguard. Sealer will not harm the skin but is difficult to remove once it dries. Wash hands immediately after contact with ECOguard with soap and water.
- Apply ECOguard when surface temperature is 65 degrees Fahrenheit or higher and maintained for 72 hours before and after installation.
- **Apply one coat of ECOguard using a Microfiber mop and trim pad as desired.**
- Additional coats are acceptable. Allow each coat to dry thoroughly before applying the next coat, about 2-4 hours.
- Coverage rate is approximately 600-800 sq. ft. per gallon over previously coated surfaces.
- Allow ECOguard to cure for 48 hours before cleaning the surface.

3. Removal / Stripping ECOguard Sealer

- ECOguard is difficult to completely remove from the surface of the rubber and may take several attempts. ECOguard is removed by abrasion using an approved stripping pad. Anything used to chemically remove the sealer will jeopardize the integrity of the rubber.
- To remove, use E-Strip 32 oz. per gallon water and a buffer fitted with a 3M 7200 Black or 7200 Brown or equivalent stripping pad.
- Apply a liberal amount of diluted stripper to floor and work buffer from one side to the other until sealer is removed. Successfully removing the sealer may require several passes with the buffer or auto scrubber.
- **CAUTION –DO NOT USE a high-performance black pad such as 3M's 7300 series. It will act as a sander and will damage the surface of the rubber.** ECOsurfaces assumes no liability in the event of damage to the rubber in the removal process. ECOguard is considered a permanent sealer and not intended to be stripped from the rubber as a standard procedure. This procedure is for restorative maintenance purposes only. To re-apply ECOguard please follow step 1.

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 within five years 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.

ECOfit and ECOfit Plus warranty shall not cover dissatisfaction due to improper 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 salesman 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 "Seconds," "Off Goods," or other irregular (non-first quality) flooring materials. With respect to "Seconds" or "Off Goods," 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 to flooring products from rubber mats or rubber backed mats.
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. Premature wear and deterioration from spikes and skate blade exposure.
18. Differences in color between products and photography.
19. 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.



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