



ECOsilence

TECHNICAL MANUAL

Installation • Warranty

Manufactured in the U.S.A. by:



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Supersedes all previous versions
Check website for updates

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GENERAL INFORMATION

The ECOsilence line of products for impact sound insulation are engineered to provide better performance than any other sound control product available, and have been rigorously tested to achieve proven results. Made from 92% resilient recycled rubber and backed by more than 400 independent laboratory and field tests, ECOsilence has been selected and used in some of the best hotels and condominiums in the world. It can be installed under most types of grouted, glued, and floating floors, including ceramic tile, stone, brick, pavers, hardwood, engineered wood, laminate, parquet, LVT, and carpet. All floor covering assemblies shall have prior approval before installation.

I JOB SITE CONDITIONS

Areas to receive ECOsilence should be weather tight and maintained at minimum, a constant room temperature of 65°F (10°C) for 48 hours before, during, and after installation.

II SUBFLOOR REQUIREMENTS & PREPARATION

A. GENERAL

NOTE: Please follow the subfloor requirements and preparation recommendations determined by the flooring manufacturer when no such recommendations exist for the floor finishing product.

1. All subfloors/substrates must be inspected prior to installation.
2. Install ECOsilence over concrete, gypsum, self-leveling materials, and wood.
3. Wood subfloors should be double construction, rigid, and free from movement.
4. Wood subfloors (when installed with grouted floor coverings like tile) must be prepared according to ANSI L/360 standards, or as required by the floor covering manufacturer.

NOTE: Particleboard, “chipboard,” masonite, and luan are not suitable underlayments.

5. Concrete floors must be fully cured and permanently dry. 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.
6. Subfloor should be smooth to prevent irregularities, roughness, or other defects from telegraphing through the material. The surface should be flat to the equivalent of 3/16” (3.9mm) in 10’ or as recommended by the flooring manufacturer.
7. Mechanically remove all traces of old adhesives, paint, or other debris by scraping, sanding, or scarifying the substrate. DO NOT use solvents.
8. Grind all high spots until level and fill low spots with an approved patching/leveling compound.
9. All saw cuts (control joints), cracks, indentations, and other non-moving joints in the concrete must be filled with an approved patching/leveling compound. Allow patching material to dry thoroughly.
10. Any concrete subfloor can be a source of moisture-related flooring failures. It is the installer’s responsibility to test the concrete or other cement-like material for moisture.
11. Maximum moisture content must be measured using the RH, Relative Humidity test method, per the ASTM F2170 standard.
 - A. Moisture content (**when using E-Grip III**) should not exceed 85% RH.
 - B. Moisture content (**when using Evolve**) should not exceed 80% RH.If levels are higher, then the installation must not proceed until the problem is corrected.

12. 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. In addition, the finished prepared surface on which the flooring is to be installed must conform to the ASTM F710 standards.
13. 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.
14. If using other approved adhesives, please refer to manufacturer's acceptable limits.

III HAZARDS

A. SILICA WARNING

1. Concrete, floor patching compounds, toppings, and leveling compounds can contain free crystalline silica. Cutting, sawing, grinding, or drilling concrete can produce respirable crystalline silica (particles 1-10 micrometers). 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.

B. LEAD WARNING

1. Certain paints may 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.

C. ASBESTOS WARNING

1. Resilient flooring, backing, lining felt, paint, or asphaltic "cutback" adhesives could contain asbestos fibers. Avoid actions that cause dust to become airborne. DO NOT sand, dry sweep, dry scrape, drill, saw, beadblast, 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.

IV MATERIAL STORAGE AND HANDLING

A. GENERAL

1. Deliver the material to the job site in its original unopened packaging with all labels intact and stored appropriately to prevent damage.
2. Inspect all material for visual defects before beginning the installation. Ecore will honor no labor claim on material installed with any visually apparent defects.
3. Verify the material delivered is the correct type, thickness, and amount. Report any discrepancies immediately.
4. The material and any adhesive must be acclimated at room temperature for a minimum of 24 hours before starting the installation.
5. Roll material is stretched slightly when it is rolled at the factory. At the job site, the installer should allow all cuts to relax before gluing down. Shaking the material once it is unrolled can help it to relax more quickly.

Installation

I. PERIMETER ISOLATION STRIP

NOTE: It is essential to FIRST install the Perimeter Isolation Strip before placing and trimming the Impact Sound Insulation Material!

1. Attach Perimeter Isolation Strip to the wall perimeter of the entire subfloor, as well as to the perimeter of any protrusions, to isolate or break the vibration transmission path between the floor and the wall (diagram #1).

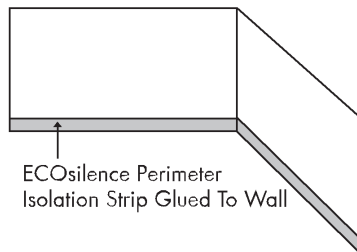
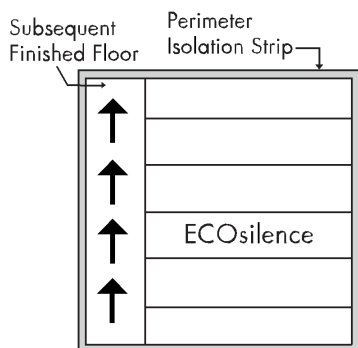


Diagram #1

2. Temporarily fasten the Perimeter Isolation Strip in place with masking tape, duct tape, carpet tape, or spot gluing. The Perimeter Isolation Strip should be secured at the bottom only as the top will later be trimmed flush with the new top layer of flooring.

INSTALLATION OF THE ECOSILENCE

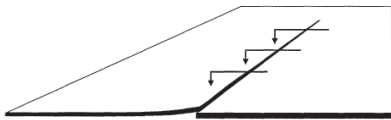
1. Make the assumption that the walls you are butting up against are not square. Using a chalk line, create a starting point for an edge of the material to follow.
2. Remove the shrink-wrap from the roll of ECOsilence and unroll it onto the floor and allow to relax. Lay the material in such a way that you will use your cuts efficiently. Cut each roll to the required length.
3. Lay the ECOsilence material perpendicular to the subsequent installation direction of the topping material.



1. The ends of each section may be trimmed as necessary, in order to fit the surface area to be covered. Trim section ends to exact dimensions required (e.g. joints with walls, etc.).
2. Maintain the required ambient conditions for adhesive application and bonding.

NOTE: Full glue-down of ECOsilence is required for all types of finished flooring materials, unless the floor is considered to be floating. ECOsilence may be loose laid for floating floors.

1. After ECOsilence is rolled out and allowed to relax, fold the material back halfway.
2. Apply adhesive to substrate using proper trowel for application.
 - a. 2mm ECOsilence – Use a 1/16" x 1/32" x 5/64" U notched trowel
 - b. 5mm and thicker – Use a 1/16" square notched trowel.
3. Lay the ECOsilence into the wet adhesive. Do not allow the material to “flop” into place. This may cause air entrapment.
4. Immediately roll the floor using a 35-75 lb. roller to ensure proper adhesive transfer. Overlap each roll of the roller 50% of the previous pass. Roll the width first, then the length.
5. Fold the second half of the roll back over the first half of the material. Spread the adhesive at right angles to the seams in order to prevent the adhesive from oozing up through the seam.
6. Make sure the lengthwise edge of the material is aligned exactly with that of the neighboring section. Edges must contact but not overlap.



7. Repeat procedure for the all sections of ECOsilence until room is finished.

VIII FLOATING FLOORS

1. Attach perimeter isolation strip per above.
2. Dry lay the rolls onto the subfloor.
3. Dry lay the rolls onto the subfloor with duct or carpet tape to hold all seams together.

NOTE: Gluing down ECOsilence is not required for floating floors.

IX INSTALLATION OF PLYWOOD OR CEMENT BOARD

1. The plywood or cement board should be glued down using an approved adhesive.

2. Apply adhesive to the ECOsilence using the manufacturer's recommended trowel size.
3. **Do not mechanically fasten any material through ECOsilence. Any mechanical connection, such as nails, screws, staples, etc., will transmit noise through to the building structure, compromising the performance of ECOsilence.**

IX INSTALLATION OF SHEET VINYL OR LUXURY VINYL TILE AND PLANK

1. Sheet vinyl is **not** an approved installation method over the ECOsilence material. Please contact Ecore Commercial for factory laminated sheet vinyl products.
2. For LVT installation, please see appropriate Tech manual at www.ecorecommercial.com

X INSTALLATION OF CERAMIC AND PORCELAIN TILE

1. Apply approved mortar directly onto ECOsilence as directed by mortar manufacturer.
2. Follow mortar and tile manufacturers' installation procedures.

XI INSTALLATION OF WOOD FLOORING

1. Follow the flooring manufacturer's directions for installing the flooring. Use their recommended adhesives, procedures, and equipment.
2. **Do not mechanically fasten any material through ECOsilence. Any mechanical connection, such as nails, screws, staples, etc., will transmit noise through to the building structure, compromising the performance of ECOsilence.**
3. Install flooring using an approved urethane adhesive.
4. Follow all manufacturers' recommendations and instructions for the adhesive.

XII INSTALLTION OF BASEBOARD

NOTE: If a baseboard is required, install the baseboard after the finished floor has been installed.

1. Only install baseboard after Perimeter Isolation Strip has been trimmed to finished floor height. See diagram 4.
2. The baseboard must not touch the finished floor. See diagram #5.

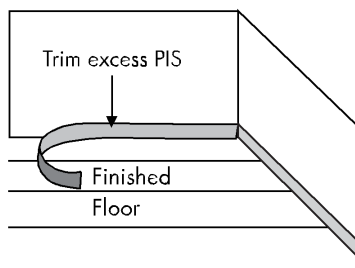


Diagram #4

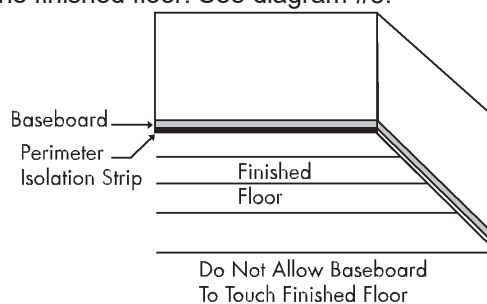


Diagram #5

3. Attach the baseboard to the wall above the Perimeter Isolation Strip. In order to isolate or break the vibration transmission path between floor and wall, the baseboard must not touch the finished floor (diagram #5).
4. Seal the entire perimeter with an ASTM C920 approved elastomeric joint sealant.

Recommended Materials

NOTE: All materials shall be delivered to the job site in the original containers with the manufacturer's identification on each package. Unauthorized modification to any product is not permitted. The following materials are listed because of their extensive testing and field experience with ECOsilence products.

A. APPROVED ADHESIVES

1. E-Grip III by Ecore
2. E-Grip Evolve by Ecore Commercial
3. Bostik's Best[®] by Bostik[®]
4. Mapei Ultrabond[®] ECO 980
5. DriTac 7500/7600 by DriTac
6. Chemrex 941 by BASF

B. APPROVED THIN-SET MATERIALS

1. ANSI A118.4 Standard Modified Dry-Set Cement Mortar
2. ANSI A118.15 Improved Modified Dry-Set Cement Mortar

C. APPROVED GROUT MATERIALS

1. ANSI A118.6 Standard Performance Grout
2. ANSI A118.7 High Performance Grout
3. ANSI A118.8 Modified Epoxy Grout

D. APPROVED GYPSUM PRIMERS

1. Mapei – Primer T
2. Ardex – P51
3. Bostik – Universal Primer
4. Specco S-55

E. APPROVED CEMENTITIOUS BACKERBOARDS

1. ANSI A118.9 Standard Cementitious Backer Board Unit (CBU)

F. APPROVED ACOUSTICAL SEALANT

1. ASTM C920 Standard Specification for Non-hardening Elastomeric Joint Sealant

Warranty

Ecore offers a limited lifetime warranty on the ECOsilence brand of Impact Sound Insulation products against defects in material and workmanship, and it shall meet all published specifications and perform effectively. Ecore warrants that during the warranty period, ECOsilence shall not harden, become brittle, chip, crack, tear, or exhibit any signs of excessive deterioration except for normal wear and tear. All other warranties, including implied warranties for a particular purpose, wear due to ultraviolet degradation, and uses and installations that are contrary to ECOsilence specifications, recommendations or instructions are expressly excluded. The sole remedy against the seller will be the replacement or repair of the defective goods; or, at seller's option, credit may be issued not exceeding the selling price of the defective good. Lifetime means for so long as the job installation remains unchanged by the original owner.

The recommendations for applications and installation contained within this document are based on our extensive experience and current technological practice. Ecore's liability and responsibility in the event of damages is limited to the extent defined in our General Terms and Conditions of Business and is not in any way increased by advice given by our sales representatives or applications engineering staff. Ecore is a corporation duly organized and validly existing under the laws of the Commonwealth of Pennsylvania.



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