

# ECOsilence™

## TECHNICAL MANUAL

Installation • Maintenance • Warranty

[www.ecosurfaces.com](http://www.ecosurfaces.com) • 1-877-326-7873

Last updated on 11/18/11.  
Replaces all previous manuals.  
Please see the website for the most updated version.

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The following recommendations for applications and installation are based on our extensive experience and on current technological practice. Our liability and responsibility in the event of damages are limited to the extent defined in our General Terms and Conditions of Business and are not in any way increased by these recommendations or by advice given by our sales representatives or applications engineering staff.

### WARRANTY

ECOsurfaces is guaranteed by ECORE International™ to be free of manufacturing defects in both material and workmanship. If such a defect is discovered, the customer must notify ECORE directly or through the contracting installer or distributor. If found to be defective within five years, the sole remedy against the seller will be either the replacement or repair of the defective goods, or at the seller's option, credit may be issued not exceeding the selling price of the defective goods.

The ECOSurfaces warranty shall not cover dissatisfaction due to improper maintenance or installation, damage from improper maintenance or usage or general misuse, including, without limitation, burns, cuts, tears, scratches, scuffs, indentation damage from high heels, rolling loads, damage or discoloration from floor care products not recommended by either Gerbert Ltd. or ECORE, extended exposure to direct sunlight or differences in color between samples or photographs and actual flooring.

## MATERIAL STORAGE AND HANDLING

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 slightly stretched when it is rolled at the factory. At the job site, the installer should allow rolls to relax before gluing down. Shaking the material once it is unrolled can help to relax it more quickly.

## PART I – REQUIRED MATERIALS

**GENERAL:** ECOsilence™ Underlayments can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, wood, engineered laminate, parquet, vinyl and carpet.

**A. ECOsilence™ Impact Sound Insulation Material (underlayment)**

**B. ECOsilence™ Perimeter Isolation Strip**

**C. Duct tape**

**D. Carpet or utility knife**

**NOTE:** When using grouted flooring materials, such as ceramic tile, paver, brick, marble and stone, adhesive is also required.

**E. Materials for Glue-Down Method:**

1. A urethane adhesive. Select from approved adhesives listed in Part VII.
2. Trowel or brush, as required by adhesive manufacturer.
3. 35-75 lb. roller

**F. Materials for Thin-Set Method:**

1. Thin-set mortars. Select from list in Part VII.
2. Trowel, as required by mortar manufacturer.
3. 35-75 lb. roller

## PART II – SUBFLOOR PREPARATION

**GENERAL:** ECOsilence™ Impact Sound Insulation can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, engineered wood, laminate, parquet, vinyl and carpet.

**A. Wood Subfloors**

1. Wood subfloors must be a minimum 1" thick double construction. Qualify deflection according to ANSI standards, as required by the finish floor manufacturer.

**B. Concrete Floors**

1. Concrete subfloors must have a minimum compressive strength of 3,000 psi, and be fully cured and permanently dry.
2. Maximum moisture vapor emission of the concrete must not exceed 5.5 lbs. per 1000 sq. ft. in a 24 hour period using a calcium chloride moisture emission test per ASTM F1869 or 85% RH (Relative Humidity) per ASTM F2170 standard. If levels are higher using either test method, one of ECORE's recommended vapor retardants must be used.
3. Areas requiring fill, patching or leveling must be prepared by the general contractor using a self-

leveling underlayment or a skim coat and patching compound in accordance with the manufacturer's instructions.

- C.** Subfloors should be dry, clean, smooth, level and structurally sound. Subfloors must be free of dust, oil, solvent, paint, wax, oil, grease, asphalt, sealers, curing and hardening compounds, alkaline salts, old adhesive, residue and other extraneous materials according to ASTM F710.

- D.** If a vapor barrier is required, specify any of the following products:

1. ARDEX MC – 724-203-5000, [www.ardex.com](http://www.ardex.com)
2. Bostik DURABOND D250 – 888-592-8558 [www.bostik-us.com](http://www.bostik-us.com)

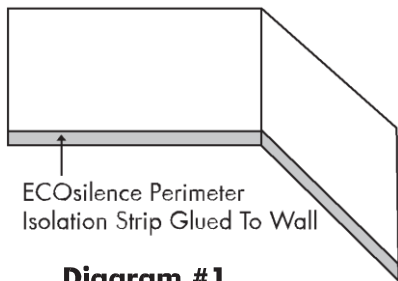
## PART III – PLACING AND TRIMMING ECOSILENCE

**GENERAL:** ECOSilence™ Impact Sound Insulation can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, engineered wood, laminate, parquet, vinyl and carpet.



It is **essential** to install the ECOSilence Perimeter Isolation strip prior to placing and trimming ECOSilence Impact Sound Insulation Material! Do not install baseboard until finished topping is installed.

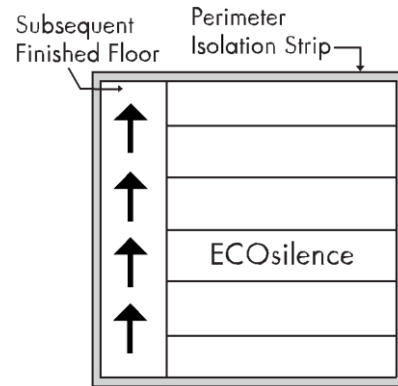
- A. Glue the ECOSilence Perimeter Isolation Strip to the wall perimeter of the entire subfloor, as well as around the perimeter of any protrusions, in order to isolate or break the vibration transmission path between the floor and the wall (see diagram #1).



**Diagram #1**

- B. Fasten the ECOSilence Perimeter Isolation Strip in place with tape or spot gluing. The PIS will later be trimmed flush with the new top layer of finished flooring.
- C. 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.
- D. Remove the shrink-wrap from the roll of ECOSilence and unroll it onto the floor. Lay the material in such a way that you will use your cuts efficiently. Cut each roll to the required length.

- E. Lay the ECOSilence material perpendicular to the subsequent installation direction of the topping material (see diagram #2).



**Diagram #2**

- F. 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.).
- G. Maintain the required ambient conditions for adhesive application and bonding.

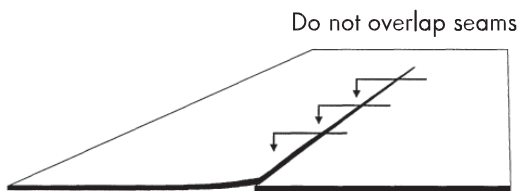
## PART IV – INSTALLING ECOSILENCE

**GENERAL:** ECOSilence™ Impact Sound Insulation can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, engineered wood, laminate, parquet, vinyl and carpet.

### A. Method #1: Glue Down

**NOTE:** Full glue-down of ECOSilence is required for all types of finished flooring materials unless the floor is considered to be floating.

1. Roll out a section of ECOSilence and fold the material back halfway.
2. Depending on the type of adhesive used, choose a suitable applicator (see Part I) and apply the adhesive evenly over the substrate.
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 (see diagram below).



**Diagram #3**

1. Repeat procedure for the next section of ECOSilence.
2. Fix problem areas (e.g. over stairs, contours and edges) in place using adhesive.

### B. Method #2: Thin-Set Polymer Modified Mortar (Alternative to Method #1)

1. Apply specified mortar (see Part VII) as directed.
2. Apply only enough mortar as can be covered with ECOSilence within a 20-30 minute time period.
3. Roll ECOSilence into place. Once set, use a 35-75 lb. roller to set ECOSilence in place.

### C. Method #3: Tape Down

**NOTE:** Glue or thin-set fixing of the ECOSilence is not required but is recommended for non-grouted, floating flooring material installations.

1. Dry lay the rolls onto the subfloor using the Placing and Trimming Method described in Part III.
2. Use duct tape or a high-quality carpet tape to secure the butt joints and seams.

## **PART V – INSTALLATION OF TOPPING**

**GENERAL:** ECOSilence™ Impact Sound Insulation can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, engineered wood, laminate, parquet, vinyl and carpet.

### **A. Plywood / Cement board**

1. The plywood or cement board should be glued down using an approved adhesive or thin-set (see Part VII for list of adhesives).
2. Apply adhesive to or thin-set to the ECOSilence using the manufacturer's recommended trowel size.

**NOTE:** Do not mechanically fasten the boards to the ECOSilence using nails or staples. Any hard connection may transmit vibration and, therefore, sound through to the building structure compromising the construction.

### **B. Vinyl**

When installing vinyl or linoleum directly over ECOSilence, a layer of E-Grip™ III adhesive shall be back troweled onto its surface. This process seals the ECOSilence to prevent any plastic migration.

### **C. Ceramic Tile or Stone**

1. Apply selected mortar (Part VII) over ECOSilence, as directed by mortar manufacturer.
2. Do not spread more mortar than can be covered in a 20-30 minute time period.
3. Tap or beat the tile into place to ensure 90-100% coverage. Remove a tile periodically to check for adequate coverage.

### **D. Wood**

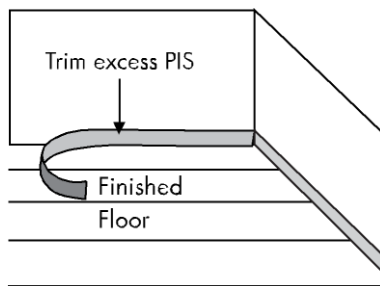
1. Place and fix floor covering, carefully observing floor covering manufacturer's instructions.
2. Follow all manufacturers' recommendations and instructions for the adhesive cement.

**PART VI – INSTALLATION OF BASEBOARD**

**GENERAL:** ECOsilence™ Impact Sound Insulation can be installed under most types of grouted and non-grouted flooring installations including ceramic tile, stone, marble, brick, pavers, hardwood, engineered wood, laminate, parquet, vinyl and carpet.

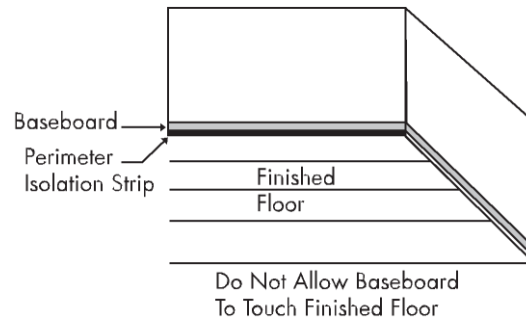
**NOTE:** If a baseboard is required, install the baseboard after the finished floor has been installed.

- A. After the finished floor is installed, trim the excess ECOsilence Perimeter Isolation Strip around the entire perimeter of the finished floor (see diagram #4).



**Diagram #4**

- B. Nail 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 (see diagram #5).



**Diagram #5**

- C. Seal the entire perimeter with a permanently flexible acoustical caulk.

## PART VII – 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. If you would like us to evaluate any materials as alternatives, please call ECORE Technical Services at (800) 322-1923.

### A. Urethane Adhesives

1. E-Grip™ III by ECORE (800) 322-1923
2. Bostik's Best® by Bostik® (800) 592-8858
3. DriTac 7500/7600 by DriTac (800) 394-9310
4. Henry #971 (800) 232-4832

### B. Thin-Set Materials

1. ARDEX FB9L (724) 203-5000
2. ARDEX X701
3. ARDEX X7G Plus

4. ARDEX S16
5. Bostik® Hydroment® Single-Flex™ Mortar
6. Laticrete 253 Gold
7. Laticrete 254 Platinum
8. Custom Building Products' VersaBond® (800) 272-8786
9. Custom Building Products' FlexBond®
10. Custom Building Products' Masterblend® with CustomFlex™

### C. Grout Materials

1. ARDEX Flex Grout
2. Bostik Hydroment Joint Filler
3. Laticrete Epoxy Grout
4. Laticrete 1500 or 1600
5. Custom Building Products' 100% Solid Epoxy Grout
6. Custom Building Products' PolyBlend®



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