



Eco Timber[®] HealthyBond-MS[®] '3-in-1' Adhesive, Sealer & Sound Membrane - Installation Instructions

120309

HealthyBond-MS[®] Adhesive is designed for installing Wood & Bamboo Flooring. HealthyBond-MS[®] Adhesive is a one-part, trowel applied modified saline technology that contains zero VOCs, zero solvents, zero isocyanates and helps contribute to LEED point project qualification. For more information or to place an order call Eco-Timber at (888) 801-0855.

Flooring Types

- Engineered Plank
- Solid Plank
- Solid Parquet
- Cork Underlayment

Features

- Green MS Polymer Technology
- Contains No Water
- Tenacious, Flexible
- Excellent Green Grab
- Easy to Spread, Easy to Clean
- Zero VOC, Very Low Odor
- No Solvents, Isocyanates, or Phthalates
- No Toxic Chemicals
- **FIIC** (Field Impact Insulation Class) Sound-Deadening Rating: **59** (over 8" concrete slab over skim-coat plaster ceiling) when installed per the Flooring Installations Instructions section below
- Available in 4-gallon containers

General Subfloor Preparation

- Clean - All subfloors must be free of dirt or any surface contamination such as paint, grease, oil, sealers, waxes and curing compounds. HealthyBond-MS[®] should not be used over these substances. Concrete, sheet vinyl, vinyl tile, terrazzo and ceramic tile subfloors must be scoured with 20-grit sandpaper. Thoroughly sweep or vacuum the subfloor just before installation. New sheet vinyl or vinyl tile must be coated with a primer. Old vinyl must be sanded first, then cleaned with TSP or equivalent cleaner to remove all wax and other coatings.
- Smooth and Flat - All subfloors should be flat to within 3/16" over a 10 ft. radius, or 1/8" over a 6 ft. radius. Grind down any high spots and fill any low spots with a quality cementitious leveling compound.
- Radiant Heat - radiant heated subfloor systems should be turned off 24 hours prior to and during installation to prevent premature curing of the adhesive.

Some wood flooring products can be glued down over lightweight concrete (less than 3000 PSI) or gypcrete, providing the surface is properly prepared. Check with the wood flooring manufacturer to make sure that a lightweight concrete or gypcrete subfloor is approved, and follow the concrete/gypcrete manufacturer's recommendation for the application of a latex primer for both the adhesive and concrete sealer applications of HealthyBond-MS[®] Adhesive.



Crack Suppression

Cracks up to 1/8" can be bridged with normal installation procedures. Cracks larger than 1/8" must be filled with an epoxy or urethane crack sealer and allowed to dry prior to the installation.

Concrete Sealer Application Instructions

HealthyBond-MS[®] Adhesive/Sealer will bring moisture vapor transmission from as high as 10 lbs. per 1,000 sq. ft. over 24 hours down to below 3 lbs., as measured by the Calcium Chloride Moisture Emission Test. When using HealthyBond-MS[®] Adhesive/Sealer as a two-step moisture control system, use a 3/16" x 5/32" V notched trowel to apply the first coat of adhesive/sealer.

Trowel



3/16" x 5/32" V Notch

Coverage

50 sq. feet/gal.

Approved Subfloor for HealthyBond-MS[®] as a concrete sealer:

- concrete; above or on grade

As needed, flat trowel the adhesive/sealer in order to produce a smooth 30-mil (0.75mm) membrane film over the entire subfloor and form the moisture barrier. Allow the adhesive/sealer to dry a minimum of 4 hours before applying the second coat of adhesive/sealer and installing the wood flooring. The floor can be installed up to 7 days after sealer has cured. Precaution must be taken to protect the membrane from dirt, grit or other contamination that would hinder a bond between the sealer and the adhesive.



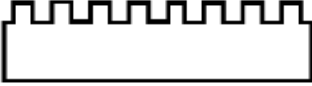

Once the sealer coat has dried, apply the adhesive for the wood flooring with the recommended trowel, filling any holes or gaps in the dried sealer film as you proceed. Make sure to follow the Flooring Installation Instructions below.

Flooring Installation Instructions

Read this information carefully before installation. If there are any questions, please call Eco Timber at (888) 801-0855 before proceeding. It is the installer's responsibility to determine the proper trowel size for the product being installed and the acceptability of the subfloor. The subfloor must be clean, dry, structurally sound, and free of all contaminants. The humidity and temperature of a specific job-site will differ and should be accounted for in planning the installation, as the set-up time of the adhesive could vary depending on these conditions. High humidity will shorten set-up time. Carefully follow the wood floor manufacturer's recommendations regarding subfloor conditions and the prevention of moisture damage. HealthyBond-MS[®] is moisture resistant, but will not prevent damage to the flooring caused by moisture from the subfloor, unless an additional coating of adhesive is applied per the Concrete Sealer Application Instructions section above.

Trowels and Coverage

Note: uneven or 'lumpy' subfloors may necessitate a larger trowel notch size in order to achieve full adhesive transfer, particularly with rigid flooring products. Always verify full adhesive transfer before proceeding.

Floor Type	Trowel	Coverage
Engineered Plank, 5/16" up to 1/2" Solid Plank, 3/4" Parquet, and Bamboo up to 5/8"	 3/16" x 1/4" on 1/2" Centers, V Notch	50-60 sq. ft./gal.
Solid Plank 1/2" up to 3/4"	 1/4" x 1/4" x 1/4" Square Notch	30 sq. ft./gal.
5/16" Solid Parquet	 1/8" x 1/8" x 1/8" Square Notch	80 sq.ft./gal.
Cork Underlayment	 3/32" x 3/32" x 3/32" V Notch	120 sq. ft./gal.

Failure to use proper trowel size will void all warranties. All square footage rates are estimated. Rates will vary based on substrate condition and the angle the trowel is held to the subfloor. EcoTimber does not warrant against problems caused by improper use of installation products. Always carefully follow the flooring manufacturer's written installation instructions.

Approved Subfloors for Adhesive

- Plywood
- Terrazzo and ceramic tile
- Concrete; above, on or below grade
- Underlayment grade O.S.B.
- Light weight concretes (coated with latex primer)
- Vinyl tile flooring coated with vinyl primer
- Non-cushioned fully adhered sheet vinyl coated with vinyl primer



Concrete Subfloors

Concrete should be at least 60 days old and fully cured. Regardless of the concrete's age and whether or not there are any visible signs of moisture, always perform a Calcium Chloride Test per ASTM F-1869, Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride. Test all areas of the subfloor. The maximum reading on concrete for wood installations should not exceed 3 pounds per 1,000 square feet over 24 hours. If there are readings greater than 3lbs in any one location, the concrete must be sealed prior to installation using a pre-coat of HealthyBond-MS[®] Adhesive per the Concrete Sealer Application Instructions above.

Plywood, Oriented Strand Board (OSB), Particleboard or Wood Subfloors

Before installing over any one of these subfloors, test for moisture throughout the installation area using a quality pin-type wood moisture meter, adjusted for the appropriate species. The moisture content should not exceed 12% in any location. If it is over 12%, wait until the subfloor is drier and if needed, eliminate the source of the moisture with appropriate remediation. Before installing solid wood flooring, the flooring should be acclimated until its moisture content is within 3% of the subfloor. Subfloors should have 1/8" expansion space around each panel. If expansion space is not present, cut around and through the panel joints with a circular saw.

To install a plywood subfloor over concrete, use a 1/4" x 1/4" x 1/4" square notched trowel to apply adhesive. Score 3/8" deep every 8 to 10 inches along the bottom of 4' x 4' sheets of 3/4" exterior plywood. Set 4' x 4' sheets into wet adhesive. Apply weight as necessary and allow to cure overnight before beginning flooring installation.

Installation

Provide adequate ventilation/air circulation. Installation should not begin until all wet work (painting, dry wall, etc.) is complete and the HVAC system is under normal operation. Jobsite temperature must be maintained between 55 and 90 degrees Fahrenheit before and during installation.

Trowel out only the amount of adhesive that can be covered in 30 minutes. Install wood flooring into wet adhesive immediately. Secure the first row with edge blocking or by top-nailing. Tighten side and end joints and reduce movement by securing the flooring together with painter's tape (check with the flooring manufacturer for approved tape manufacturers, as some painter's tape may damage the floor's coating). Occasionally check the back of the plank to ensure that you are achieving proper transfer. If transfer is less than 90%, scrape it off and apply fresh HealthyBond-MS[®]. Failure to achieve full adhesive transfer may result in poorly-adhered and/or lifting planks and does not constitute an adhesive failure.

Apply weight to any bowed flooring or low spots and to all floor-mounted trim moldings. Remove all defective or unsightly boards immediately. This adhesive is tenacious and the flooring will be difficult to remove once the adhesive has cured. Roll the floor with a 100 lb. roller every two to three hours during and immediately after installation.



Limitations

- The curing time of HealthyBond-MS[®] is affected by temperature, humidity, porosity of the subfloor, and ventilation/air movement. Cure time is affected more by humidity than temperature - it will be accelerated by high humidity and slowed by low humidity.
- Do not use on wet, contaminated or brittle substrates.
- Due to the dimensional instability of solid wood flooring, only engineered plank can be installed below grade.
- Light traffic is allowed after 8-12 hours. Normal traffic is allowed after 24 hours.
- Do not use this adhesive as a leveling material.
- Cutback residue (old adhesive) must be removed prior to applying new adhesive.

Reuse of Partial Containers

Cover adhesive in the pail with a plastic trash bag or two layers of plastic film. Tightly secure lid and turn pail over to seal contents from outside air. To open container, remove lid, cut plastic, and remove thin surface layer of cured adhesive.

Shelf Life

12 months when stored at 75° F and 50% relative humidity.

Clean Up

- Immediately remove excess adhesive from the flooring surface before it dries. Clean as you go. Cured adhesive can be difficult to remove.
- Remove adhesive residue from flooring and tools with Mineral Spirits.
- NOTE: never attempt to remove HealthyBond-MS[®] from tools or flooring with water, as moisture will cause the adhesive to cure more rapidly.

Waste Disposal Method

Incinerate or bury in landfill in accordance with Federal, State and Local regulations. Incineration is the preferred method of disposal.

Precautions

- May cause skin and/or eye irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. See Material Safety Data Sheet for further information. Ingestion may cause irritation.
- **KEEP OUT OF REACH OF CHILDREN.** Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Avoid breathing vapors. Use only with adequate ventilation.
- Use impervious gloves, eye protection and if TLV is exceeded or if used in a poorly ventilated area, use NIOSH/MSMA approved respiratory protection in accordance with applicable federal, state and local regulations. DO NOT take internally. Empty container may contain hazardous residues.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes.. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION.