

Installation Instructions, Care and Maintenance Guide & Warranty Information for Engineered Woods

We thank you very much for selecting EarthWerks™ Hardwood Flooring. We sincerely hope your new environment will bring you the warmth, comfort, and beauty that only genuine wood can provide. We make every effort to ensure that the finest hardwoods are used to create our wood planks, that the natural characteristics of the wood are preserved, and that our Aluminum Oxide Urethane finish provides the protection needed to help preserve the look of your EarthWerks Hardwood Flooring for years of admiration and enjoyment.

IMPORTANT

In order to preserve the natural beauty of your new wood flooring, it is important to read all of the following installation and maintenance instructions, prior to installation. Please note: *Complying with the following installation and maintenance instructions will ensure the full benefit of your EarthWerks Hardwood Flooring Warranty.* With hardwood flooring's natural beauty come normal variations in color, tone and grain. Therefore, we cannot warrant against color variations within a floor, or variations between samples and the installed floor.

- Installers: Please review with your customers the information under the section: “Installers–Advise Your Customers of the Following.”
- It is the responsibility of the installer to determine, prior to installation, that the job-site environment and subfloors meet or exceed all applicable standards and recommendations of the construction and materials industries. These instructions recommend that the construction and subfloor be dry, clean, stiff and flat. The manufacturer declines any responsibility for job failure resulting from, or associated with sub-surface or job-site environmental deficiencies.
- Do not open the flooring material packaging until you are ready to start the installation. Both room and flooring material must be properly acclimated to temperature and humidity conditions prior to proceeding with installation.
- Install out of several cartons simultaneously to achieve proper color and shade mix.

Installer/Owner Responsibility

EarthWerks Hardwood Floors are manufactured in accordance with accepted industry standards, which permit a natural or manufacturing defect tolerance, not to exceed 5%.

- Your ordered flooring should include an additional 5% square footage in material to the actual square footage of the area to be installed to allow for needed for cutting and grading .
- Prior to installation, the installer must inspect all flooring material and assumes all responsibility for final inspection of product quality. Carefully examine flooring for color, manufacturing, finish and quality before installing. The installer must use reasonable selectivity and separate out or cut off pieces with defects, whatever the cause. If material is not acceptable, do not install it, and contact the seller immediately.

INSTALLATION INSTRUCTIONS

Tools Needed For Installation

- Electric Power Saw, Circular or Jigsaw
- Wooden or plastic spacer wedges
- Chalk line
- Broom
- Hammer
- Adhesive and Adhesive Remover
- Handsaw
- Trowel
- Tape measure
- Moisture Testing Equipment
- Pull bar
- 3M 2090 Blue Masking Tape or Equivalent
- Tapping block

For glue down installations, use Capitol UW 600, Mapei UB 990 or equivalent flooring adhesive. (See your distributor for adhesive recommendations.) Follow manufacturer's guidelines and tool recommendations when using adhesive.

For nail-down or staple-down installations, use the proper nailer. See Nail-down or Staple-Down Installation.

For floating installations use White wood glue (PVAC).

CAUTION: By not using the proper tools, “puckering” may result on the face of the plank. EarthWerks is not responsible for problems caused by the use of improper tools. See your distributor for tool recommendations and use.

Note: Never strike the plank edges directly with a hammer – always use a wooden block to protect the edges of the boards.

INSTALLERS - ADVISE YOUR CUSTOMER OF THE FOLLOWING

SEASONS: HEATING AND NON-HEATING

Hardwood flooring product dimensions are slightly affected by varying levels of humidity within your installation area. Use care to control humidity levels within the 40%–60% range. In addition, we recommend the following:

- Heating Season (Dry) - A humidifier is recommended to prevent excessive shrinkage in wood floors due to low humidity levels. Wood stoves and electric heat, in particular, tend to create very dry conditions.
- Non-Heating Season (Humid, Wet) - Proper humidity levels can be maintained by use of an air conditioner, dehumidifier, or by turning on your heating system periodically during the summer months. Avoid excessive exposure to water from tracking during periods of inclement weather. Do not obstruct in any way the expansion joint around the perimeter of your floor.

FLOOR REPAIR

Minor damage can be repaired with a touch-up kit or filler. Major damage will require board replacement, which should be performed by a professional wood flooring installer.

PRE-INSTALLATION PROCEDURES

ACCLIMATING THE HARDWOOD FLOORING

HVAC systems should be fully operational at least 14 days prior to flooring installation, maintaining a consistent room temperature between 60°–75° Fahrenheit and relative humidity between 40%–60%. This not only stabilizes the building's interior environment, but also is essential when acclimating hardwood flooring to the job site.

Hardwood flooring should be handled and unloaded with care and stored within the environmentally controlled site. Flooring stored upon "on-grade" concrete floors should be elevated at least four inches to allow air circulation under cartons. Leave hardwood flooring in closed cartons during acclimation period. Typical applications require at least a 48-hour acclimation period.

ROOM PREPARATION

Remove existing baseboards, quarter rounds and thresholds. Undercut doorjamb, using a piece of flooring material as a guide. Door frames and other wooden elements should be sawed off at the bottom to ensure proper fit and expansion tolerances of the installed wood flooring.

PRE-INSTALLATION INSPECTION

It is the responsibility of the installer to inspect each board for visible defects prior to installing the board. Any board with visible defects will be replaced at no cost. **If a defective board is installed, EarthWerks will not pay cost of labor for repair or replacement of defect.**

SUBFLOOR TYPE

EarthWerks Hardwood Flooring can be installed over the following properly prepared subfloors:

- **Concrete:** On, above or below grade installations are acceptable. Must be clean, dry and smooth within 3/16" over 10'.
- **Terrazzo:** Should be lightly sanded and cleaned with mineral spirits prior to spreading the adhesive. Allow the mineral spirits to dry prior to spreading the adhesive.
- **Ceramic Tile:** Tiles must be securely fastened to the subfloor. Surface should be roughed up with a sander or grinder and cleaned to remove all dust. If grout lines are too deep they need to be filled.
- **Wood Type Subfloors:** Includes plywood, OSB and underlayment particleboard and tongue and groove boards. Must be smooth and dry. Squeaks and popping areas should be screwed down prior to spreading adhesive.
- **Vinyl:** Includes sheet and vinyl tile. Vinyl must be securely fastened to the subfloor with full spread adhesive. Loose laid or perimeter glued sheet vinyl must be removed. De-gloss flooring as necessary to create a good adhesive bond using an abrasive pad. Do not sand sub-surfaces such as vinyl or synthetic tiles that may contain asbestos.

SUBFLOOR PREPARATION

Subfloor must be:

- Clean and free of wax, paint, oil, and debris. Scrape smooth and sweep prior to installation.
- Flat to 3/16" – per 10' radius. If subfloor prep work is required, "hills" should be sanded down and "valleys" filled with an underlayment patch, developed by a reputable manufacturer for use with hardwood flooring.
- Structurally sound prior to installation. Screw down loose areas to reduce squeaking, and replace water damaged or delaminated sub-flooring or underlayments.

Testing For Moisture Content

All concrete subfloors must be tested for moisture content. Several tests are outlined below. These tests do not guarantee a dry concrete slab year round. With that in mind, a moisture barrier using a minimum of 6-mil poly film should have been established between the ground and concrete.

- 3% Phenolphthalein in Anhydrous Alcohol Solution. Do not apply solution directly to concrete surface. First, chip 1/4" deep into concrete test area and apply several drops of the solution. If any change in color is observed, further testing is required.
- Tramex Concrete Moisture Encounter Meter. Moisture readings obtained should not exceed 4.5 on the upper scale.
- Calcium Chloride. Moisture emission should not exceed 3 lbs/1,000 square feet during a 24-hour period with this test. One test must be performed every 250 square feet. Per industry standards, 0-3 lbs is dry, over 3 lbs requires moisture barrier (see below), and over 7 lbs is too wet.

PRE-INSTALLATION PROCEDURES CONT.

Moisture Barrier System

If the above tests reveal moisture levels greater than 3 lbs and less than 7 lbs, install sheet vinyl (PVC) directly to concrete slab. Follow instructions from sheet vinyl manufacturer, using a premium grade alkaline resistant adhesive and full spread application system to bond vinyl to subfloor.

SET UP

- In order to have sufficient material on hand, calculate area and add 5% more flooring material to allow for cutting waste and for minor natural or manufacturing defects.
- Work out of several cartons at the same time to insure color and shade mix.

LAYOUT

- Layout should be designed to save labor and materials, as well as to enhance the appearance of the floor. Lay the floor so that the end joints are staggered at least 8 inches. Staggered or irregular joints mean less material waste and a better overall appearance.
- Plan the layout so that the last row of flooring (which usually needs to be cut lengthwise) is not too narrow. In some cases, it may be necessary to cut the first row as well as the last row.
- Allow 3/8" expansion space along all walls. Flooring should be laid at right angle to the floor joist and, if possible, in the directions of the longest dimension of the room.

INSTALLATION OVER RADIANT HEAT (FLOATING INSTALLATION ONLY)

HEATING SYSTEM

- Maximum allowable temperature is 80° Fahrenheit.
- System must be fully operating at normal temperature for a minimum of 21 days prior to floor installation.
- The heating system must be turned off 24 hours prior to installation and must remain off for 24 hours after installation.

SUBFLOOR

Note: Only the pre-installation and structural warranties of EarthWerks Hardwood Flooring are valid over Radiant Heat, as we cannot control the specifications stated above.

- The subfloor should be completely dry. Moisture on a dry weight basis must not exceed 1.5% for concrete, 0.3% or less for gypsum and 6–8% for wood subfloors.
- A vapor barrier should be installed on all concrete, stone or mineral subfloors.
- Starting 2 days after completion of installation, gradually increase the temperature over a 7-day period to normal operating level. Never allow the floor surface temperature to exceed 80° Fahrenheit.
- Maintain recommended interior humidity levels at all times, if necessary, by means of humidifiers.
- Room temperature should not vary more than 15° Fahrenheit season to season. Maintain 35–55% humidity in radiant heated rooms.
- Heating pipes must be covered with 1" of concrete or be a minimum of 1/8" below bottom of plywood subfloor.
- Under plywood subfloors, heat transfer plates or insulation must be in place.

Important Note: Maple wood and Beech wood flooring expand and contract more than other wood types. There is a great risk of gaps occurring especially when installed over radiant heating systems. Such gaps are not manufacturing defects. Take the above into consideration when choosing a wood type to be installed over radiant heat.

GLUE-DOWN INSTALLATION

GLUING THE PLANKS (Figure 1.1)

- To determine a straight first starting row, snap a chalk line the width of a few boards plus 3/8" expansion space from the wall. To keep first rows straight and in place, nail a straight 1" x 2" or 1" x 4" holding board on the chalk line.
- Make another snap line at a comfortable working distance from the holding board (about 24").
- Spread adhesive in first working area. Do not spread more adhesive than can be covered within 20 minutes.
- When the first section is complete, strike another parallel chalk line from the last row installed, spread the adhesive and complete the section.
- Repeat section by section until the job is finished. Remove the starting board, spread adhesive and complete the area from the starting board to the wall.
- To fit the last piece, lay it upside-down with the tongue edge parallel to the tongue edge of the piece next to it, the short end butting up against the wall. Mark the cutting line on the back of the board and cut it to the correct width (save the cut off piece for the second row). Turn it over, fit and glue it in place.

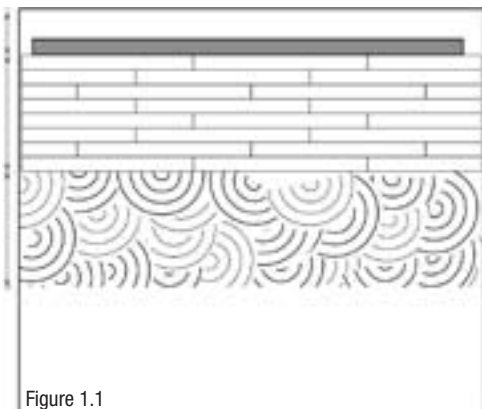


Figure 1.1

PRE-INSTALLATION PROCEDURES CONT.

FLOATING INSTALLATION

INSTALL UNDERLAYMENTS

Install 6-mil Polyethylene vapor barrier over entire flooring surface. Overlap sheets of Polyethylene 16" and tape edges creating an airtight seal. Using 1/8" foam padding, roll out one roll at a time over vapor barrier being careful not to poke holes or otherwise damage material during installation. Run padding up walls 1" to 1.5" and secure in place with tape. Join padding sections with tape. Tape down any additional loose edges. A "2-in-1" foam padding /moisture barrier may be substituted for Polyethylene.

INSTALLING THE FLOOR

Boards are installed left to right with the groove side facing the wall. A stair-step pattern will be repeated throughout installation. Stagger the ends of the boards a minimum of 8 inches. Leave a minimum 3/8" expansion around all vertical objects such as walls, poles, and stairs. If starting wall is uneven, trace the contour of wall, using a scribe, onto first row of planks and cut to size.

APPLICATION OF ADHESIVE

To secure the wood floor in a floating application, the boards must be bonded with adhesive in the tongue and groove. We recommend waterproof PVAC glue.

The glue must be applied in a continuous 1/8" bead on the top of the tongue on both the long and short edges.

GLUING AND TAPING

Dry fit first row using stair-step pattern. Number each plank in the order of installation. When you reach the last plank in first row, turn plank 180° so tongue is flush against tongue of previous plank. Mark the plank and cut to length. Dry fit final plank of row.

Begin dry fitting second row, starting with (if possible) left over piece from previous row. Be sure to stagger end of boards at least 8" to achieve effective staggered pattern.

Floating installation is completed by gluing and taping flooring profiles together. Separate first two rows noting installation order. Apply a thin bead of glue to the top of the tongue on the side and end of the board. Repeat process with subsequent planks. Press each board firmly together, tapping profiles lightly with a block and hammer if necessary.

Clean excess glue from between boards with a damp cloth. Tape each board together at side and end seams using 3-M Blue Tape. Often the last row will not end with a full plank. When this happens, place a full row of planks on top of the last row installed. Insert a 3/8" spacer against wall, and using a full width plank, trace distance from wall onto final row. Cut planks for final row to designated width. Apply glue and fit into place.

Tape may be removed within one hour. Allow 12 hours before placing furniture on floors and 24 hours before introducing heavy objects or full traffic.

Note: Do not install cabinets or walls on top of floating floors.

NAIL-DOWN OR STAPLE-DOWN INSTALLATION

SUBFLOOR PREPARATION

Remove all dirt and rough areas by thoroughly cleaning, sanding and leveling. Note: Particle board is not a suitable subfloor for nail-down or staple-down installation. The clean subfloor should be covered wall-to-wall with 15 lb. resin paper (roofing felt), overlapping 4" along the edges.

Installation

To determine a straight first starting row, snap a chalk line the width of a few boards plus 3/8" expansion space from the wall. To keep first rows straight and in place, nail a straight 1 x 2 or 1 x 4 holding board on the chalk line.

For nailer or stapler, use correct shoe based on thickness of flooring. Use pneumatic staplers with correct shoe base for the thickness of the product. (Powernail® Model 200 Pneumatic Powernailer.) Set the compressor pressure to recommended PSI and adjust accordingly using a "practice" board. Check for surface and tongue damage before proceeding with installation. Manual Model 250 Powernailer can also be used.

Begin installation with several rows at a time, tightening boards as necessary to reduce gaps before fastening. Nail/staple each board placing fasteners every 6"-8" and 3" from the ends. The last 1-2 rows will need to be face nailed where clearance does not allow blind nailing with stapler or brad nailer. Brad nail or face nail on tongue side. Rip the final row to fit and face nail. If the final row is less than 1" width, it should be edge-glued to the previous row, before installation. The two joined rows can be face nailed as one board.

Go back to the starting wall, remove the starting block and complete final rows using 6d nails, counter sunk and filled.

ALL INSTALLATIONS: COMPLETING THE JOB

- Remove spacer wedges.
- Cover all expansion gaps along walls and vertical protrusions with baseboard, quarter round or other suitable moldings.
- Clean, sweep and vacuum installed flooring before use.
- Use of stain, filler or putty stick for defect correction during installation should be accepted as normal procedure.

PREVENTIVE MAINTENANCE

To ensure the full benefit of warranties and to extend the beauty of your new hardwood floor, we recommend the following preventive maintenance steps:

- Use floor mats at all entrances to help keep dirt and moisture from being tracked in (Figure 2.1). Area rugs are recommended in high traffic areas and at sinks. Mats and area rugs should be slip resistant with backing that will not discolor the floor.
- To help guard against scratches and dents, install felt floor protectors under furniture legs and equipment (Figure 2.2).
- Use soft rubber castors for rolling furniture (Figure 2.2).
- Do not wear high heel shoes or shoes that need repair while walking on your hardwood floor. Some types of high heel shoes can severely damage the surface of any floor covering.
- Maintain a healthy humidity range at 40%–60%, which could require either a humidifier or a dehumidifier. Certain regions within North America have extreme changes in humidity levels that can affect all wood floors.
- For cleaning, use a hardwood floor cleaner specified for pre-finished polyurethane coated hardwood floors. We recommend a damp mop system that does not allow any loose liquid to touch the floor. Hardwood floor cleaner is available at most local hardware stores. **Never use wax!**

Contact your dealer for recommended maintenance and floor care products for polyurethane finished hardwood flooring.

REGULAR MAINTENANCE

- Do not let sand, dirt and grit build up on your floors.
- Dust, sweep and vacuum floors regularly (Figure 2.3)
- For cleaning, use a hardwood floor cleaner specified for pre-finished polyurethane coated hardwood floors. We recommend a damp mop

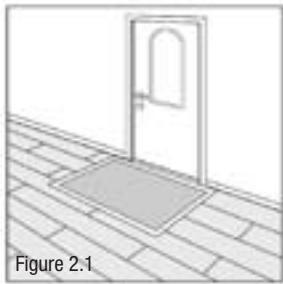


Figure 2.1



Figure 2.2



Figure 2.3

RESIDENTIAL WARRANTIES

EXCLUSIVE WARRANTY

EarthWerks Hardwood Flooring is produced from the finest raw materials and manufactured with the highest quality control standards. EarthWerks Hardwood Flooring is produced according to strict manufacturing and environmental standards. Our confidence in this product is reflected by the extension of this full residential warranty to the original purchaser of EarthWerks Hardwood Flooring.

PRE-INSTALLATION WARRANTY

EarthWerks warrants that this product is free of defects and exceeds the industry standards. You and/or your installer should carefully inspect each plank before installation. Any uncut planks that appear to have defects should not be installed, and quantities over the 5% defect tolerance can be returned to the original place of purchase for replacement at no cost to you. Wood is a natural product, containing natural variations in color, tone and grain. We do not warrant against natural variations in color within the floor or variations between samples and the installed floor.

LIFETIME STRUCTURAL WARRANTY

Each EarthWerks Hardwood Flooring plank is engineered using the most advanced flooring technology available. We guarantee that this product is free from defects in lamination and milling, and will remain free of these defects for as long as you own your residence. In the unlikely event of delamination, warping, or cupping of the product because of manufacturing defects, EarthWerks will replace or repair the defective flooring pieces at no cost to you.

FINISH WARRANTY

EarthWerks Hardwood Flooring is protected with an Aluminum Oxide Urethane finish. We warrant that there will be no wear-through of the finish for the amount of years indicated. Your specific product finish warranty life will appear on the carton, our website or other product literature. This warranty applies only to residential installations, provided the recommended installation and maintenance procedures are followed.

ADHESIVE BOND WARRANTY

We guarantee that our floors will bond to the subfloor for the life of the flooring provided the installation and application are in full compliance with EarthWerks installation instructions and the adhesive manufacturer's application instructions. These warranties are exclusive to the original purchaser of EarthWerks Hardwood Flooring products and may not be assigned or transferred. This is a residential warranty only and exclusions include damages arising from subflooring, plumbing breakage or leakage and similar catastrophes, and failures arising as a result of hydrostatic pressure.

In the event that there is a claim against this warranty, EarthWerks Hardwood Flooring will pay for one replacement of the portion of the installation that is defective. This includes all reasonable materials and labor.

ENVIRONMENTAL WARRANTY

All components of EarthWerks flooring are chosen for their responsible environmental impact. All glue used to manufacture EarthWerks Hardwood Flooring product does not have harmful levels of gas emissions. The finish does not release any harmful solvents, formaldehyde or heavy metals.

RESIDENTIAL WARRANTIES

EXCLUSIONS TO WARRANTY

The following will void this warranty:

- **Improper Installation.** Instructions must be followed including the requirement that the subfloor must be dry before installation.
- **Improper Maintenance.** Maintenance instructions must be followed and in particular the floor cannot be wet mopped.
- **Extreme Conditions.** The humidity level in the home must be in the 40%–60% range throughout the year using air conditioners, humidifiers or dehumidifiers as appropriate.
- **Abuse or Misuse.** This warranty does not cover damage caused by stiletto heels, heavy furniture or equipment, pet claws, pet urine, pebbles or sand or other items that may scratch, indent or damage the floor.
- **Water Damage.** This warranty does not cover damage caused by moisture penetration through the subfloor, flooding, leaking plumbing, overflowing sinks or similar water damage.
- **Insect Infestation.** This warranty does not cover any insect infestation after the product has left the factory.
- **Downgraded Product.** It does not apply to any products designated or sold as B-grade or Cabin grade, which is sold “as is”.

EarthWerks Hardwood Flooring excludes and will not pay consequential or incidental damages under this warranty. Repair, refinish or replacement of flooring material is the sole remedy. This warranty does not include the cost of labor if the flooring is installed by other than professional installers. There are no other warranties, including merchantability or fitness for a particular purpose, expressed or implied other than those listed within this warranty. This warranty will not be deemed to have failed its essential purpose while EarthWerks Hardwood Flooring is willing to repair or replace defective goods. Some states do not allow the exclusion or limitation of incidental or consequential damages and therefore, this exclusion may not apply. This warranty gives you specific legal rights, which may vary from state to state.

Warranty Service

To obtain service under this warranty contact your dealer.

You may also contact:

EarthWerks™ Hardwood Flooring, 2500 Agnes Street, Corpus Christi, Texas 78405, U.S.A.

Telephone: 800-275-7943 • Email: sales@earthwerks.net

www.earthwerks.net