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# Eco-\$mart Library

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## FSC Certified Teak and Engineered Almendro Teak Flooring - Installation & Maintenance

**NOTE:** Instructions also inside each box of Teak Flooring

Please follow these instructions to assure that the product is properly installed and maintained, thus assuring its beauty for many years. Should you have any doubts regarding the instructions of this manual, please contact Eco-\$mart immediately.

**INSTALLER / OWNER RESPONSIBILITY** The installer has final inspection responsibility and he has to hold out or cut-off pieces with glaring defects whatever the cause. Should an individual piece be doubtful as to its quality (color, finish, etc.), the installer should not use the piece. Whenever a board is installed, it has been accepted by the installer and / or owner. Prior to installation, the installer must determine that the surfaces and job-site environment meet the requirements established in the manufacturer's installation instructions. The manufacturer declines any responsibility for job or product failure resulting from or associated with sub-surface or job-site environment deficiencies. Hardwood floors are a product of nature and therefore, not perfect. Our product is manufactured in accordance with accepted industry standards, which permit a maximum of 5% defect tolerance. These defects may be of a manufacturing or natural type. When our product is ordered, 5% must be added to the actual area needed. Whenever the product's limited warranty applies, the manufacturer's liability is limited to replacing or repairing, at the option of the manufacturer, the material in excess of this 5% material only, excluding all other costs such as transportation, storage, installation, cutting allowance, etc.

**PRE – INSTALLATION INFORMATION** Teak Flooring can be installed on plywood, over existing wood floors or over dry concrete. It is not recommended below grade or in bathrooms. Sub-floor must be thoroughly dry, sound, flat and free of dirt, grease and wax. Use a good quality urethane adhesive/concrete sealer such as Bostich-Findley' s "MVP" for installation over concrete sub-floors on or above grade.

**BEFORE YOU START** Open all packages at least 72 hrs. prior to installation in order to acclimate the flooring to local humidity levels. Wood is a natural material and will expand or contract with changes in humidity. The higher the humidity, the longer the acclimation period. In the months of May through August some areas in the Eastern USA might require 2-3 weeks acclimation due to the local high humidity levels.

- Remove any existing base, shoe molding or doorway thresholds. These items can be replaced after installation. Door casing and moldings should be undercut at least 5/8th of an inch or removed to allow for installation beneath them and adequate room for perimeter expansion. Remove the old floor covering (when applicable)
- Sweep the sub-floor clean. Make a sketch of the installation beforehand and determine the direction in which you will lay the strips and determine your starting wall and/or location. Avoid the ladder effect by installing the strips parallel to the longest length wall of the room. It is also recommended to install them in the opposite direction across the joists or, if impossible, at a 45° angle. Select your strips so that those with flaws are re-cut and those with some color variations are installed where they are less visible. Floor should be installed from several cartons at the same time to insure good color and shade mixture. Provide proper layout of flooring by distributing short and long lengths equally and establish the desired pattern by distributing the face widths. Use an equal number of rows of each width, avoid clustering end joints.

### PREPARE SUB-FLOORING

**APA approved 5/8" Plywood or thicker, TG, exterior grade:** When installing approved plywood, refer to specific structural panel manufacturer's instructions. Joists should be 16" on center. Install your flooring in the opposite direction of your joists. Plywood sheets should be laid with grained outer plies at right angles to joists, adjacent rows staggered 4 feet and nailed every 6" along each joist with 7D or larger nails.

**Existing wood floors:** Sand any high spots & re-nail to avoid squeaks or loose boards and install new floor at right angles to the old floor.

**NOTE:** Radiant heated concrete slabs are not suitable for solid hardwood floors.

### Sub-floors must be:

- Clean – scraped or sanded, swept clean free of wax, grease, paint, oil and other debris.
- Level / flat – within 3/16" in 10' and/or 1/8" in 6'. Sand high areas or joints, fill low areas
- Structurally sound – nail or screw any loose areas that squeak. Replace any water damaged sub-flooring or underlayments.
- Dry – check moisture of sub-floor. Moisture content of sub-floor may not exceed 13% on a wood moisture meter, or read more than 3% difference than moisture level of product being installed. Plastering and concrete work must be completely dry (45 – 90 days old). To check for slab dampness, tape the edges of a 1-square-foot piece of polyethylene tightly to the slab, creating an airtight seal. After a couple of days, check the underside of the plastic for cloudiness or water droplets. If you don't see any, the slab is dry.
- The installation site should have sufficient room temperature heat (60-70°F) for a minimum of 5 days prior to installation.

**NOTE:** The installer and / or owner has full responsibility for moisture testing to ensure that the wood sub-floor and/or the concrete slab (when applicable) are within acceptable limits.

## URETHANE ADHESIVE INSTALLATION--Concrete Slab

Tools and equipment needed:	
Pry bar or large screwdriver Electric Saw Broom Tape Measure Chalk Line Hammer Hand Saw (for undercutting) Wood Flooring urethane adhesive Square Notch Trowel Adhesive Remover Hardwood Repair Kit	3M Blue Masking Tape Measuring Tape Chalk Line Screwdriver Utility Knife Table Saw (recommended) Chop Box (miter saw) Hammer and nails (masonry for concrete) Cement based Floor Leveler Moisture Meter Floor Prep equipment (To remove surface contaminants)

### Installation – general tips

- Install with urethane adhesive only--some "flex" in the adhesive allows the wood to react naturally to changing conditions
- Avoid working "on" the flooring.
- Use 3M blue masking tape to keep flooring tight while adhesive cures.
- Use of stain, filler or putty stick for defect correction during installation should be accepted as normal procedure.
- Take good care of the product. Keep in mind that prefinished hardwood flooring requires a slower and more careful installation to prevent damage to the finished surface.
- Sweep up any sawdust and bits of waste dust. Undo cardboard boxes and spread them out to protect the floor surface during all the installation.

### Adhesive transfer – general tips

Hollow spots can be eliminated if there is 90% - 95% adhesive transfer. Additional adhesive may be applied to fill voids and improve transfers. Additional adhesive will have no negative effect on the flooring. If the trowel being used is not obtaining proper transfer, please check with the adhesive manufacturer for larger notch trowel recommendations.

### Installation procedure

**Step 1.** Using a chalk line, draw a guide line parallel at 3" of the starting wall for the 2" strips, at 4" for the 3" planks or at 5" for the 4" wide planks, considering the 1/8 to 1/4 minimum expansion space between the wall. This guide line must be at a 90° angle to the adjacent wall.

**Note:** It is very important to start straight and square.

**Step 2.** Select the strips for the first 3 rows. Lay them out on the floor in the pattern in which they will be installed. The straightest strips should be used for the first three rows of the floor.

**The first row** The first row (starters row) gives you something firm (stationary) to push against. Place a 1/8 to 1/4 spacer between the first row and the wall; remove after installation. Some installations may need more than one starter row.

**Step 3.** Lay the tongue edge of the strip on the guide line. Leave a 1/8 to 1/4 minimum expansion space between the groove edge and the starting wall. This space will allow the wood to expand freely. The baseboard or molding, nailed to the wall, should cover the expansion space, once the floor is installed.

**Step 4.** The first row must be secured to the floor using finishing nails; for glue-down installations it should be allowed to dry or fastened with masonry nails. Drill holes on the surface of the strip at 1" from the groove edge and approximately 12" to 16" apart. Nail down the strip using claw hammer and a nail punch.

**Step 5.** To finish the first row, cut the last strip to the right length. It is recommended to use the remaining section to start the second row in order to minimize cutting waste. The strip selected to complete the first row should be long enough to yield a remaining section of adequate length. Leave 1/8 to 1/4 inch between the wall and the end of each strip in each row.

### The subsequent rows

**Step 6.** Start the second row with a strip of at least 6" shorter or longer than the strip used in the first row. This will avoid aligning or clustering the end joints.

**Step 7.** Set the strip in place, spread adhesive with suitable trowel and install immediately. Make sure that the trowel you are using gives you adequate adhesive transfer. You need 95% coverage for solid wood flooring. Always complete gluing down a complete row before starting the next one.

**Step 8.** Keep installing the next rows in the same manner. Lay out 6 to 8 rows of boards ahead of work position to make sure that the mix of lengths and colors is adequate.

**Step 9.** After a few rows of flooring are installed, tape them together with 3M removable blue tape as needed. This will allow you to walk on your work (only if necessary, always try to avoid working on the newly installed floor) without having the floor boards move.

**Step 10.** Follow step 6 to 9 until you cover the whole area to be floored. Please note that you may need to cut the last row along the wall. Don't forget to leave a 1/4 inch space between the strip and the wall for expansion.

**Step 11.** Install the baseboards, wood vents and door sills.

**Fitting around obstacles** To fit boards around obstacles like ducts, corners, cabinets, etc., measure carefully and test-fit the boards. Whenever possible, position the board and mark cut lines directly. Use a scribe or a cardboard template to precisely transfer irregular lines to a board, then use a jigsaw to cut the piece. Installing borders with mitered corners around hearths, stairwells or other focal points provides a finished edge that hides the ends of the flooring. To make border pieces, remove the tongue from the edge of a piece of flooring and install the border with the grooved edge out. Butt the tongue ends of flooring boards into the border grooves. Sometimes you will end up with two grooves facing each other. Just use a spline or piece of slip tongue to connect both pieces.

**Meeting lower floors** At doorways or areas where the wood flooring will meet a lower floor, install a wood reducer strip. The strip provides a transition between two thickness of flooring.

**NAIL - DOWN INSTALLATION**

<b>Tools and equipment needed:</b>	
Pry bar or large screwdriver	Hand Saw (for undercutting)
Electric Saw	Electric Drill
Broom	Drill bit (slightly smaller than
Tape Measure	10d finish nails
Chalk Line	Nail set
Hammer	Power nailer

**Installation Procedures:** All the pre-installation information, installation procedure and tips above apply for nail down installation. Just use a power nailer instead of glue to fix your flooring. You won't be able to use a power nailer until the third or fourth row.

For the first three rows, follow the instructions below:

1. The first course will need to be faced nailed with 10d finish nails about 1/2 from their back edges. Drill pilot holes slightly smaller than the nails to be used. Then face nail the first boards with the finish nails, 8 to 10 inches on center. Whenever possible, drive nails at joist locations. Set nails 1/8" below the surface.
2. In addition, blind nails through the tongue using drive-screw flooring nails every 8-10 inches. Use a nail set to finish nailing and to set the nailheads.
3. Tap the second run course tightly against the first course, using either a scrap of flooring or a rubber mallet. Blind nail at an angle through the tongue. The edges and ends of adjoining boards should fit tightly. Very small cracks are not unusual and can be sealed with filler. Follow this step until you can use a power nailer.

**MAINTENANCE INSTRUCTIONS**

1. Sweep or vacuum regularly, to prevent sand or dust from accumulating. Do not use wet mops to clean the floors.
2. Place rugs outside every entrance of the house, in front of the kitchen sink, kitchen working stations and dishwashers to protect the floor from sand, water or oily detergents.
3. Use adequate protection (felt pads or nylon glides) under all furniture and chair legs, to ease movements and prevent scratches.
4. Keep high heels shoes in good condition. Exposed metal tips in worn or damaged heels will damage the finish of the flooring.
5. Never use wax, oil-based detergents or any other household cleaners. These may dull or damage the finish, leaving a greasy film and making the floor slippery and more difficult to clean.
6. Protect the floor against direct lighting or any intense source of artificial lighting. Over time, intense light will discolor exposed surfaces.

**Contact Eco-\$mart, Inc. for free consultation and installer information.**  
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