

# HAWAII ISLAND HARDWOODS FLOORS

## RESIDENTIAL FLOOR

### INSTALLATION

Installation is the responsibility of the Owner and Installer. Beautiful hardwood floors are a product of nature and therefore, not perfect. Our wood floors are manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type.

This guide should be carefully followed in order to ensure proper installation of your new **Hawaii Island Hardwoods Floor**. Only a qualified professional hardwood floor installer should perform the installation. Prior to installation, the Installer/Owner should perform a final inspection of the grade, manufacturing and factory finish of the purchased products. The Installer must use reasonable selectivity and hold out or cut off pieces with defects, whatever the cause.

**Hawaii Island Hardwoods LLC (HIH)** shall not accept responsibility for the installation of flooring with visible defects. Before installing **HIH Hardwood Flooring**, the Installer and Owner should ascertain that the jobsite and sub floor meet all necessary requirements of **HIH's** Installation as outlined in the instructions. The **Hawaii Island Hardwoods Limited Warranty** does not cover flooring failures resulting from poor jobsite and/or sub floor conditions.

#### INSTALLATION TOOLS NEEDED

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Generally the tools needed for installation are: Handsaw or power saw, hammer, crowbar, or pull bar, tape measure, pencil, chalk line, wood or plastic spacers, tapping block, adhesive trowel, carpenters square, urethane or polymer hardwood plank adhesive as warranted by the distributor.

#### PRE-INSTALLATION AND JOBSITE REQUIREMENTS

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All work involving water or moisture should be completed prior to the installation of hardwood flooring. In fact for any new construction or remodeling project, hardwood flooring should be one of the last items installed. The jobsite should be monitored for consistent, normal room temperature of 65° and 70° F and relative humidity of 35% and 55% and acclimate as necessary. The wood floors must not be stored directly on concrete or near outside walls. Do not install **HIH Hardwood Flooring** in areas subject to moisture, such as bathrooms or laundry room. **HIH Hardwood Flooring** should only be used for interior, residential on grade or above grade, not intended for below grade use, such as basements. Do not install **Hawaii Island Hardwoods Hardwood Flooring** over radiant heat. Engineered floors can be glued directly to concrete. Do not use a concrete sealer nor install over one. The concrete must be high compressive strength. All concrete subfloors should be tested for moisture content. Visual checks are not reliable.

Acceptable test methods for subfloors moisture content include:

- **Calcium Chloride test.** The maximum moisture transfer must not exceed 3lbs./1000 square feet with this test.
- **Tramex concrete moisture encounter meter.** Moisture reading should not exceed 4.5 on the upper scale.
- **Relative Humidity probe test with a maximum reading of 75%.**

**A "DRY" SLAB, AS DEFINED BY THESE TESTS CAN BE WET AT OTHER TIME OF THE YEAR. THESE TESTS DO NOT GUARANTEE A DRY SLAB. ALL CONCRETE SLABS SHOULD HAVE A MINIMUM OF 6-MIL POLY FILM MOISTURE BARRIERS BETWEEN THE GROUND AND THE CONCRETE.**

#### SUBFLOORS

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The quality and preparation of the subfloor is important in installing your **HIH Hardwood Flooring**.

**The following are acceptable subfloor types:** Plywood, concrete. As long as the subfloors are structurally sound, clean and free of all debris, wax, grease, paint, sealers, and old adhesives and other substances which may impair proper installation, level and flat to 3/16" per 10' and will remain dry all year round. Subfloor moisture content must not exceed 3.5% for concrete or 13% for wood or ply wood. A commercial moisture meter may be utilized for testing subfloor moisture as well.

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### WOOD SUBFLOOR MUST BE:

- Dry and well secured.
- Nailed down or screwed down every 6 inches along the joist to avoid squeaking.
- Leave adequate gap around perimeter.
- Leveled by sanding down high spots and filling in low spots with an underlayment patch as necessary.

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### CONCRETE SUBFLOOR MUST BE:

- Fully cured for at least 60 to 90 days.
- Installed properly with minimum 6-mil Polyfilm between concrete and ground.
- Dry all year round. Do not install over concrete if you are not sure it will remain dry.
- Tested for moisture by using moisture meter.

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### PREPARING FOR INSTALLATION

Undercut or notch-out door casings to fit flooring underneath by placing a piece of flooring on the subfloor as a height guide for sawing. Remove door thresholds and base moldings and replace after flooring installation. Always leave at least 1/4" expansion space between flooring and all walls and vertical objects. Use a hammer and tapping block and tap against the tongue to pull planks together. Never tap against the groove of the plank. When near a wall, use a crow or pull bar to close end joints. Be careful not to damage flooring edge.

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### STARTING INSTALLATION

For aesthetic purposes, wood flooring is often laid to the longest wall. However, owner upon the advice of the professional installer should make the final decision which direction the planks will run. Most professional installers will begin installation next to an outside wall, which is usually the straightest wall and used as a reference point in establishing a straight working line. A good way to establish a working line is to measure an equal distance from the wall at both ends and snapping a chalk line. Measure distance from the wall at the width of the plank plus another 1/4" for expansion space for establishing your working line. It is advisable to dry lay a few rows before actually using glue to confirm your directional layout decision and work. Adjustment of the working line may be necessary if the outside wall or other working line reference is out of square. This can be done by scribe cutting the first row of planks to match the wall and creating a straight working line.

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### GLUE DOWN INSTALLATION

Use only moisture cured urethane or polymer adhesive specifically manufactured for hardwood plank installation. Use the recommended warranted adhesive for **HIH Hardwood Flooring**, other brands of glue will result in the void of manufacturer's warranty. Follow instructions for the adhesive carefully. Always allow for adequate cross ventilation when working with flooring adhesive. Follow adhesive instruction regarding proper set time before affixing wood floor planks. With a trowel at a 45-degree angle, spread recommended by the adhesive instruction. Start at the outside wall. Once adhesive has set per instructions, lay the first row of flooring with the groove facing the wall. Continue laying flooring until adhesive is covered with flooring. Remember to always check the alignment with the working line. Be careful not to move the installed floor on the wet adhesive, use tapping block to fit the planks together. When the first section is completed, continue by repeating process section by section until installation is complete. Cured adhesive is very hard to remove from the flooring. Do not allow any spilled or excess adhesive to remain anywhere on the surface of

the wood floor. Clean up excess or spills immediately as recommended by the adhesive manufacturer. Don't forget to stagger joints. When required use weights to hold the flooring planks on the perimeter until adhesive cures enough.

## STAPLE/NAIL INSTALLATION

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Subfloor **preferred** is a CDX plywood underlayment or at a minimum, 5/8" CDX plywood. (Particle board is not an acceptable underlayment). In the case of either staple or nail (cleat), a 1\_" length is recommended with the spacing every 4" – 6" along the length of the board and 1" from each end. Follow the manufacturer's recommended air pressure on either stapler or nailer. It is also recommended to glue the butt ends of the boards to insure a proper and firm joint. Nail or staple down installations may be successful over existing vinyl providing:

- That the subfloor is properly attached to the joists.
- That the penetration by either method is not significantly lessened.

## FLOATING FLOORS

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Starting at one wall, place the first board with the groove side toward the wall. Use wood wedges against the wall to hold true to spacing and allow for a \_" expansion space at all vertical walls or obstructions. In order to ensure that end seams are not close, it is best to rack out 3 to 4 rows prior to installation. Due to the length of **HIH Hardwood Flooring** boards, allow a minimum of 10" to 12" separation between end seams in the adjacent rows. Move any rows, if necessary, to ensure you are showing any noticeable joint patterns. Apply T & G glue in the top portion of the groove along the side of each board. Use a tapping block to ensure a tight fit. On the last row, use a pull bar to install the last piece in each row. As you install, cut the last boards in each row allowing a \_" for expansion space. After measuring, cut the board with a table saw, hand saw or jig saw. Use the pull bar to place the board into position. Leave all wedges in the floor for a minimum of 8 hours so that the adhesive will properly set. Examine the floor carefully and remove, with a damp cloth, any excess adhesive. Finally, allow at least 8 hours before traffic and 24 hours before furniture is replaced.

Where installation over radiant heating systems is approved for **HIH Hardwood Flooring**, T & G glue should be applied to both top and bottom of the groove.

## FINISHING THE JOB

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Remove expansion spacers. Reinstall base and/or quarter round moldings to cover the expansion space. Install transitions pieces such as reducer strips and T-moldings as needed. Do not allow any foot traffic or heavy furniture for at least 24 hours. Clean and remove all dirt and debris on floor by dust mopping. Follow floor care and maintenance guide to ensure longevity and lasting beauty of your new **HIH Hardwood Flooring**.