



INSTALLATION GUIDELINES

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. Only a qualified professional hardwood floor installer should perform your Hennessy Wood Floor installation. These guidelines should be followed carefully to ensure the proper installation of your new Hennessy Wood Floor.

PRODUCT INSPECTION

The homeowner/purchaser should compare the contents of each box to their floor sample to verify that it is the expected product. If there is any discrepancy between what was expected/purchased and the actual product received, DO NOT proceed with installation and notify the retailer immediately. Individual wood products may vary due to die lot changes in the staining process. Hennessy Wood Floors cannot honor claims due to a lack of on-site product inspection/acceptance by the homeowner/purchaser.

The homeowner and installer should perform a final inspection of the boxes to check on manufacturing and factory finish of the delivered product. The installer must use reasonable selectivity and hold out or cut off pieces with defects, whatever the cause. Hennessy Wood Floors shall not accept responsibility for the installation of flooring with visible defects. Before installing Hennessy wood floors, the installer and homeowner should verify that the jobsite and sub floor meet all Hennessy Wood Floors installation requirements as outlined here. The Hennessy Warranty does not cover flooring failures resulting from poor jobsite and/or sub floor conditions.

INSTALLATION TOOLS NEEDED

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, carpenter's square, urethane or polymer hardwood plank adhesive as warranted by the distributor.

PRE-INSTALLATION AND JOBSITE REQUIREMENTS

All issues involving water or moisture should be resolved 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 between 65° and 70° F and relative humidity between 35% and 55% and acclimate as necessary (not maintaining the temperature or humidity level will void the manufacturer warranty).

The wood floors must not be stored directly on concrete or near outside walls. Do not install Hennessy Wood Flooring in areas subject to moisture, such as bathrooms or laundry room. Hennessy 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 Hennessy Wood 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. If moisture in concrete is detected, it is necessary to use a moisture barrier included but not limited to, PVC Vinyl sheet (with felt-backed and vinyl wear layer) or a recommended moisture retardant "sealant" product that is approved as a sealant for concrete and hardwood floor installation.

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 4.0 on the upper scale.
- Relative Humidity probe test with a maximum reading of 60%.

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.

ACCLIMATION PROCESS

Hennessy engineered wood flooring does not need to be acclimated to the job site unless there is an extreme temperature or humidity change (from humid to a dry area or vice versa). If there is a severe temperature difference, make sure to condition the cartons of wood flooring by carefully opening the end of the boxes and expose the end of the boards ONLY.

Do not open the boxes or take the planks out until the wood floor is acclimated and ready to be installed. This process may take several days. Room temperature and humidity level in the installation environment is a major part of the acclimation process. The humidity level must stay consistent during the life of the wood floor.

SUBFLOORS

The quality and preparation of the subfloor is important in installing your Hennessy Wood Floors.

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.

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.

Concrete subfloor must be:

- Fully cured for at least 60 to 90 days.
- Installed properly with minimum 6mm 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.

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 ½" 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.

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 ½" 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.

GLUE DOWN INSTALLATION

Use only moisture cured urethane or polymer adhesive specifically manufactured for hardwood plank installation. Use the recommended warranted adhesive for Hennessy wood floors, 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. 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, not doing so can result in spots that will be very difficult to remove and/or could cause permanent damage to the finish of the wood.

STAPLE/NAIL INSTALLATION

Subfloor preferred is a plywood underlayment or at a minimum, 5/8" plywood. (Particle board is not an acceptable underlayment). In the case of either staple or nail (cleat), a 1½" 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 staple or nail. 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

Rubber or cork underlayment is highly recommended for a sound installation. Install the polyfilm underlayment in the same direction the wood flooring is to be installed. Extend the underlayment a few inches up the wall and cut excess prior to installing transition or any moldings.

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 ½" 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 Hennessy 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 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 ½" 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.

FINISHING THE JOB

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 Hennessy Wood Floors.