

LOCKING ENGINEERED INSTALLATION

READ THESE INSTRUCTIONS COMPLETELY BEFORE BEGINNING INSTALLATION.



GENERAL INFORMATION

ATTENTION INSTALLERS

WARNING: Installation of wood product may create wood dust, which is known to the state of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection.

Sawing, sanding and machining wood products can produce wood dust. Airborne wood dust can cause respiratory, eye and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

Precautionary Measures: If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH-designated dust mask. Avoid dust contact with eye and skin.

First Aid Measures in Case of Irritation: In case of irritation, flush eyes or skin with water for at least 15 minutes.

THIS PRODUCT MANUFACTURED USING CARB PHASE II AND TSCA TITLE VI COMPLIANT MATERIALS.

⚠ WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to www.P65Warnings.ca.gov/wood-dust.

Always wear appropriate personal protective equipment (PPE) which include NIOSH or OSHA approved dust masks, safety goggles and work gloves.

WARNING: EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST, OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE, OR OTHER ADHESIVE.

These existing in-place products may contain asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the existing in-place product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for instructions on removing all resilient floor covering structures.

If you have technical or installation questions please call 1-800-258-5758

IMPORTANT HEALTH NOTICE FOR RESIDENTS OF MINNESOTA ONLY:

THESE BUILDING MATERIALS EMIT FORMALDEHYDE. EYE, NOSE, AND THROAT IRRITATION, HEADACHE, NAUSEA AND A VARIETY OF ASTHMA-LIKE SYMPTOMS, INCLUDING SHORTNESS OF BREATH, HAVE BEEN REPORTED AS A RESULT OF FORMALDEHYDE EXPOSURE. ELDERLY PERSONS AND YOUNG CHILDREN, AS WELL AS ANYONE WITH A HISTORY OF ASTHMA, ALLERGIES, OR LUNG PROBLEMS, MAY BE AT GREATER RISK. RESEARCH IS CONTINUING ON THE POSSIBLE LONG-TERM EFFECTS OF EXPOSURE TO FORMALDEHYDE.

REDUCED VENTILATION MAY ALLOW FORMALDEHYDE AND OTHER CONTAMINANTS TO ACCUMULATE IN THE INDOOR AIR. HIGH INDOOR TEMPERATURES AND HUMIDITY RAISE FORMALDEHYDE LEVELS. WHEN A HOME IS TO BE LOCATED IN AREAS SUBJECT TO EXTREME SUMMER TEMPERATURES, AN AIR-CONDITIONING SYSTEM CAN BE USED TO CONTROL INDOOR TEMPERATURE LEVELS. OTHER MEANS OF CONTROLLED MECHANICAL VENTILATION CAN BE USED TO REDUCE LEVELS OF FORMALDEHYDE AND OTHER INDOOR AIR CONTAMINANTS.

IF YOU HAVE ANY QUESTIONS REGARDING THE HEALTH EFFECTS OF FORMALDEHYDE, CONSULT YOUR DOCTOR OR LOCAL HEALTH DEPARTMENT.

PRE-INSTALLATION PLANNING

PRE-INSTALLATION GUARANTEE

- ATTENTION! Inspect ALL materials carefully BEFORE installation. Warranties DO NOT cover materials with visible defects once they are installed.
- It is the responsibility of the installer/owner to determine if the job site subfloor and jobsite conditions are environmentally and structurally acceptable for wood floor installation.
- Manufacturer declines any responsibility for wood floor failure resulting from or connected with subfloor, subsurface, job site damage or deficiencies after hardwood flooring has been installed.

JOBSITE CONDITIONS

- Structure must be completely enclosed (including exterior windows and doors).
- Gutters, downspouts, and exterior grading should direct drainage away from the structure's foundation.
- Basements and crawl spaces must be dry and well ventilated. Crawl spaces must be covered at ground level with a 6 mil polyethylene (poly) film with seams overlapped and taped completely.
- Before installation begins, heating and cooling systems must be in operation for a minimum of 14 days, maintaining a room temperature of 60-80°F degrees, and 35-55% Relative Humidity. A humidifier or a dehumidifier may be required in some areas to maintain these levels. Gapping and cupping are only a few of the conditions that can develop if these conditions are not maintained.

FLOORING ACCLIMATION & STORAGE

- If the flooring needs to be stored on the jobsite:
 - Leave in package, store laying flat, packages raised off of subfloor (adequately supported to prevent sagging).
 - Store in a climate controlled area, 60-80°F degrees room temperature, between 35-55% RH.
- Our Click-Lock Engineered wood flooring does not require jobsite acclimation.

INSTALLATION METHODS

- Click-Lock Engineered wood flooring features a glue-less locking tongue & groove system designed for floating installation.
- Click-Lock Engineered wood flooring can also be glued directly to the subfloor

(call 1-800-258-5758 for instructions).

- Click-Lock Engineered wood flooring cannot be stapled/nailed down to the subfloor.

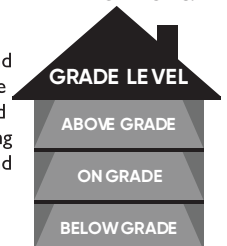
RADIANT HEATING SYSTEMS

- Only Oak, American Cherry and Walnut species are approved for use over in-floor radiant heat systems.
- The radiant heat system must be designed and installed correctly according to the manufacturer's specifications.
- The subfloor should never exceed 80°F. The overall layout and internal tubing must remain consistent in heat range throughout the entire floor. "Hot" and "Cold" spots within the system can alter floor performance, and void the warranty.
- Prior to beginning any installation, concrete subfloors with radiant heat installed should not exceed 2 lbs. using a standard calcium chloride test.
- Plywood subfloors should not exceed a 3% difference in moisture content prior to installation.
- To ensure a successful installation and allow excess moisture to evaporate, the heating system should be operational and running for a minimum of 14 days prior to installation.
- Three to four days prior to installing the floor, the system should be reduced or shut off. At time of installation, the subfloor must be between 64-68°F.
- Radiant heat setting temperature should be adjusted gradually in 5° increments and never vary more than 15° F seasonally. Never exceed 80°F.

INSTALLATION LOCATIONS

- Can be installed ON, ABOVE, and BELOW GRADE
- Can be installed on most any dry, flat, clean, and structurally sound solid surface including flooring grade plywood & OSB board, concrete, and soundly secured existing floors (linoleum, vinyl, tile, etc.). When doing floating installation only, also over particle board and lightweight concrete.
- Not warranted for installing in full bathrooms.

SUITABLE APPLICATIONS:



PRE-INSTALLATION PLANNING CONTINUED

PRE-PLANNING

- Slightly bowed (curved) boards can be installed and are not considered to be defective (See Installation Tip 1).
- When cutting or sanding wood flooring it is recommended that you wear a protective dust mask to avoid inhaling wood dust, and safety glasses for eye protection.
- A floating floor expands and contracts with the seasons and should never be restricted in any way. Be careful not to put fasteners (nails, screws, etc.) through the floor or “pinch” the floor under doorways, cabinets, etc. This could cause the floor to pull apart or buckle because it is not allowed to float freely. Be especially careful when installing moldings and trim not to nail into the floating floor.
- While installing flooring, it is best to work from several cartons of material to properly blend the naturally occurring lighter and darker boards to achieve a more uniform floor appearance. In addition, this will help distribute the random length planks.
- Decide the direction the flooring will be installed in the room. If possible, it is best to install perpendicular to the direction of the flooring joists. Flooring will be accented best if installed parallel to the largest windows in the room.
- This floating wood floor requires a minimum 3/8” expansion space around the perimeter of the room to allow for normal expansion and contraction, as well as around any other vertical objects in the room (cabinets, columns, etc.).
- Extra expansion space is required in large areas (i.e. one room; two rooms with

adjoining archways or a room with an extended hallway) measuring more than 24 linear feet in either direction (width or length). Either install a T-molding across the width of the room, archway or use an additional 1/4” expansion for each additional 12 linear feet (i.e. for a 3/8” product in a room that measures 36’ x 36’ you would leave 5/8” expansion around all vertical surfaces which can be covered by your choice of molding).

- Pre-plan the number of rows (based off of board face width). Often the last row will need to be ripped lengthwise to fit. If the measurement for the last row is less than 2” (allowing for required expansion space), it would best to rip the boards in the first and last rows to balance the installation. If the ripped boards have to be narrower than 2”, use a high quality carpenter’s glue in the tongue and groove to secure the narrower boards to the wider adjoining planks.
- Remove any base, shoe, or threshold moldings prior to beginning installation. These can be replaced at the end of the install.
- Under cut door jams to allow for expansion space and to avoid difficult scribe cuts. This can be done by using a small piece of the flooring as a guide/rest for your jamb saw.
- The use of putty to fill small gaps or correct minor defects should be considered normal in any wood flooring installation. When using putty on low sheen (gloss) wood floors, use a plastic putty knife and remove excess immediately with a soft cloth to prevent gloss-up of the finish.

SUBFLOOR REQUIREMENTS

CHECKING SUBFLOOR FLATNESS

- Use a straight edge to determine subfloor flatness (throughout floor). The subfloor should be flat to within 3/16” in an 8’ area.
- High areas need to be sanded and low areas filled. NEVER SAND ANY EXISTING FLOOR OR ADHESIVE SUSPECTED TO CONTAIN ASBESTOS OR CRYSTALLINE SILICA (such as resilient vinyl or linoleum, or the adhesives used to bond them).
- High or low areas in the subfloor could cause the floated floor to flex causing squeaking, popping, or other noises. Over time this flexing could also cause the locking system to weaken resulting in gaps or loose boards in the floor.

CHECKING SUBFLOOR MOISTURE

WOOD SUBFLOORS:

- The moisture content of the subfloor must be checked using a reputable manufacturer’s moisture meter. Wood subfloors should not exceed a 14% moisture

content, and the moisture variance between the wooden subfloor and the new flooring to be installed should not exceed 4%.

CONCRETE SUBFLOORS:

- When flooring is installed directly to a concrete subfloor, one of the following moisture tests is recommended:
 - Calcium Chloride Test (maximum 3.0 pounds)
 - Tramex Moisture Meter (maximum reading of 4.5)
 - Delmhorst BD2100 Moisture Meter (reading of green/dry)
 - RH (Relative Humidity) should not exceed 75% in slab
- Keep documentation of all moisture readings. If results indicate a moisture problem exists, DO NOT INSTALL THE FLOORING! Most moisture issues can be corrected easily (sealing, etc.). When corrected, retest the subfloor to assure moisture guidelines have been met.

TOOLS NEEDED

- Foam Underlayment
- 6-mil Polyethylene film (if going over concrete)
- Roberts #1406 T&G Adhesive
- Chalk Line
- 3/8” Wood or Plastic Spacers
- T-square
- Tapping Block
- Pencil
- Measuring Tape
- Wood Chisel
- Safety Glasses
- Circular or Rip Saw
- Jamb Saw
- Dust Mask
- Knee Pads
- Pull Bar

INSTALLING FLOOR

OVER WOOD SUBFLOORS

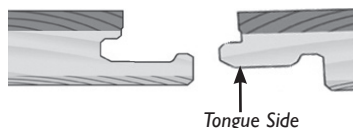
- Roll out underlayment butting the edges following manufacturer’s instructions. The underlayment used over wood subfloors does not require an attached moisture vapor barrier, nor is a separate layer of 6-mil polyethylene film required.

OVER CONCRETE SUBFLOORS

- Loose-lay 6-mil polyethylene film as a moisture vapor barrier. Overlap the seams of the poly by 8” and tape the seams with clear packaging tape. Poly should be lapped up the wall but not touching the sheetrock. Roll out underlayment butting the edges over the poly film following manufacturer’s instructions.
- NOTE: IF YOU ARE USING AN UNDERLAYMENT THAT CONTAINS A MOISTURE VAPOR BARRIER ATTACHED, THE SEPARATE 6-MIL POLY LAYER IS NOT REQUIRED.

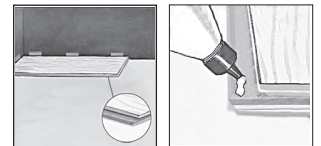
LAYING THE FLOOR

- ALL BOARDS SHOULD BE INSTALLED WITH THE TONGUE SIDE FACING THE WALL.



- Begin installing the first row in the left corner of the room by laying a board flat on the underlayment. Apply a thin bead of glue in the groove end of the first board. Align the end of the second board with the first and join these two boards together by simply pushing straight down on top of the first board. Repeat these steps to complete the boards in the first row. Usually the last board in the row will need to be cut to size. If leftover cut pieces are longer than 12”, they can be

used as starter boards for future rows. It is recommended to weigh down the boards in the first row until the glued ends have time to set. Subsequent rows do not have to be glued as they are installed.



- Insert wood or plastic spacers between the wall and the boards in the first row to maintain the required expansion space for the floating floor. Additional spacers will need to be added along all walls as the installation progresses to assure that the proper expansion space is allowed around the perimeter of the room.
- Start the second row by holding the long side of the board at approximately a 45 degree angle to the first board in the first row. Engage the board sides by rotating the board downward toward the floor while pushing it against the edge of the first board. Repeat this step for the other boards in the second row, cutting the last board to size if necessary. (Note: A tapping block can be helpful when engaging flooring boards.)
- Install the third row and subsequent rows in the same manner as described above. Once three rows have been installed, recheck the spacers to be sure they are tight against the wall. If necessary, adjust the floor to ensure the installation is square.
- The boards in the last row often need to be ripped lengthwise to the needed width (be sure to allow for the required expansion space). Mark the boards to be ripped to the correct width including the contours/irregularities of the wall as needed.

- After the floor is completely installed, remove spacers, install moldings, vacuum to remove grit and thoroughly clean the floor with an approved hardwood floor cleaner. If the floor needs to be covered for protection, use a breathable material

like craft paper or clean, uncoated and unprinted cardboard. Never cover a newly installed wood floor with plastic, coated materials or adhesive backed films that can trap moisture.

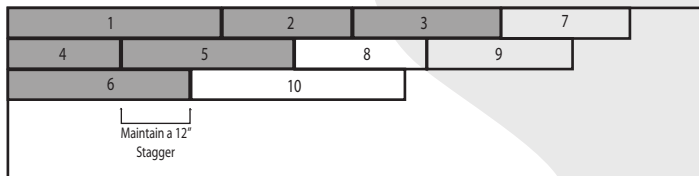
INSTALLATION TIPS:

INSTALLATION TIP 1

- Note that slightly bowed (curved) boards can be installed and are not considered defective. There are a few tips that can help make installing these boards easier:
 1. Place the bowed board at a 45 degree angle into the groove area of the assembled boards on the floor as you would normally. Apply forward and downward pressure to engage the boards as usual.
 2. As you meet resistance, use your left hand placed near to the center of the bowed board to apply downward pressure in the bowed area.
 3. With your right hand, use a tapping block and tap against the long edge of the bowed board as you apply downward pressure. The tapping action on the bowed board helps it to engage and lower into the proper flat position. Do not tap too hard as this can damage the groove edge of the board. **NOTE: DO NOT INSTALL FLOORING USING A RUBBER Mallet. STRIKING THE FLOORING SURFACE WITH A RUBBER Mallet MAY PERMANENTLY MAR THE FINISH CAUSING DAMAGE THAT CANNOT BE REPAIRED.**
 4. If the bowed board cannot be installed using this method, this board often can be cut and used as a starter or ending board elsewhere in the installation.

INSTALLATION TIP 2

- To assist with the stability of the first few rows, we recommend that you install the first row, then 2 to 3 boards in the second row, then 1 to 2 boards in the third row. Go back to the second row and install another 2 boards, then 1 board in the third row. Complete this “stepping” arrangement until the three rows are complete. Always stagger the end joints of adjacent rows a minimum of 12”. Try to avoid a “stair-step” pattern when looking across several rows, and try to avoid “H” patterns in the installation.



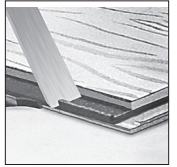
INSTALLATION TIP 3

- You cannot force the boards to go together. If they are not laying flat when engaged they are not fully seated. If the boards are not laying flat, disengage the boards and start the step over (to disengage a board, lift long side of the board to

a 45 degree angle and remove). Insure the edges of both boards meet evenly by applying equal pressure while rotating the board down. Using a tapping block to help the boards to go together as they are being engaged in this manner often is the answer to fully seating the boards together.

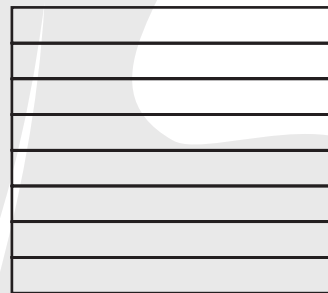
INSTALLATION TIP 4

- When working under door jambs or the toe kicks of cabinets, there will not be enough clearance to achieve the 45 degree angle necessary to engage the board sides. It will be necessary to trim away the raised portion on the groove side using a wood chisel and then glue the tongue and groove together using a high quality carpenter's glue. A pull bar may be used to engage these boards.

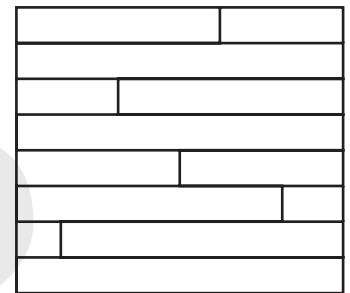


INSTALLATION TIP 5

- In narrow areas (i.e. hallways) where planks will be installed width wise, the planks must be staggered to incorporate at least one end joint in every other row. Installing same length boards side by side without this stagger could cause the flooring to bow upward or weaken the joints.



INCORRECT



CORRECT

INSTALLATION TIP 6

- Transition pieces (moldings), and the floor itself, are made from real wood and will exhibit all the natural variations of the particular species. Every transition piece will not match every board of flooring. Therefore, the best results will be achieved by identifying boards that are complimentary to the transition prior to installation, setting the boards aside to be installed next to the transition.

FLOOR CARE AND PREVENTIVE MAINTENANCE

With today's finishes, maintenance of your wood floor could not be easier. Normal maintenance consists of regular sweeping or vacuuming to collect dirt and grit that can dull your finish, along with periodic use of an approved no-wax hardwood floor cleaner. For Handscraped/Distressed floors, the uneven surface may trap dirt and dust so we recommend vacuuming more often. Always vacuum thoroughly prior to the use of approved floor cleaner. Be certain the wheels of the vacuum are clean and do not damage the finish. Scrubbing machinery, power scrubbers and steam cleaners are not recommended to clean the floor.

PREVENTIVE MAINTENANCE

Aside from those mentioned above, other steps can also be taken to minimize wear and tear and keep your floor looking new for years to come.

- DO NOT USE liquid or paste wax, oil soaps, or any other cleaners that contain silicon, lemon oil, tung oil, acrylics or ammonia. Furthermore, avoid 'home recipes' found on the internet or other sources. These products and techniques can cause your floors to become slippery, or cloud and dull the finish. Use of these and similar products can harm the performance of your floor and may also affect its re-coat ability.
- DO NOT USE A VACUUM WITH A BEATER BAR HEAD
- Use throw rugs inside and outside of entryways to prevent dirt and grit from being tracked in and scratching your finish. Rugs, mats or backings should not be abrasive to prevent scratching to the wood floor. Material should be breathable to avoid trapping moisture underneath.
- Wood and water don't mix! Never damp mop your floor. Clean up spills promptly with a soft cloth and recommended cleaning products.

- Place felt-type protectors on the bottom of all furniture and fixture legs to assist in preventing denting and scratching.
- High heels and sports cleats will likely dent, gouge or scratch hardwood floors, which is not covered by our warranty.
- Keep pet's nails trimmed and clean of dirt and debris.
- Avoid sliding or rolling heavy furniture or appliances across the floor. Whenever possible, lift the item to be moved. If it must be rolled, protect the floor with plywood or other hard sheeting to prevent dents.
- Use a humidifier/dehumidifier to maintain a consistent year round climate, keeping wood shrinkage and movement to a minimum.
- The exposure of sun, UV rays and artificial lighting accelerate the oxidation and aging of wood. This can cause the wood and/or stain to change color and/or fade over time. If possible, we recommend that you rearrange fixtures, rugs and furniture periodically to ensure the flooring ages evenly. Our warranties do not cover damage from the sun, UV rays or artificial light. Note: American Cherry and Walnut species are especially susceptible to the effect of light and may darken or lighten due to UV or artificial light exposure. These species change color more rapidly than other Domestic Species.
- Furniture casters should have wheels constructed with soft, non-marring/marking material such as soft rubber, or covered with felt. Hard wheeled casters such as plastic, vinyl or hard rubber can mark or dent hardwood floors. Caster wheel width and diameter should comply with load guidelines.