

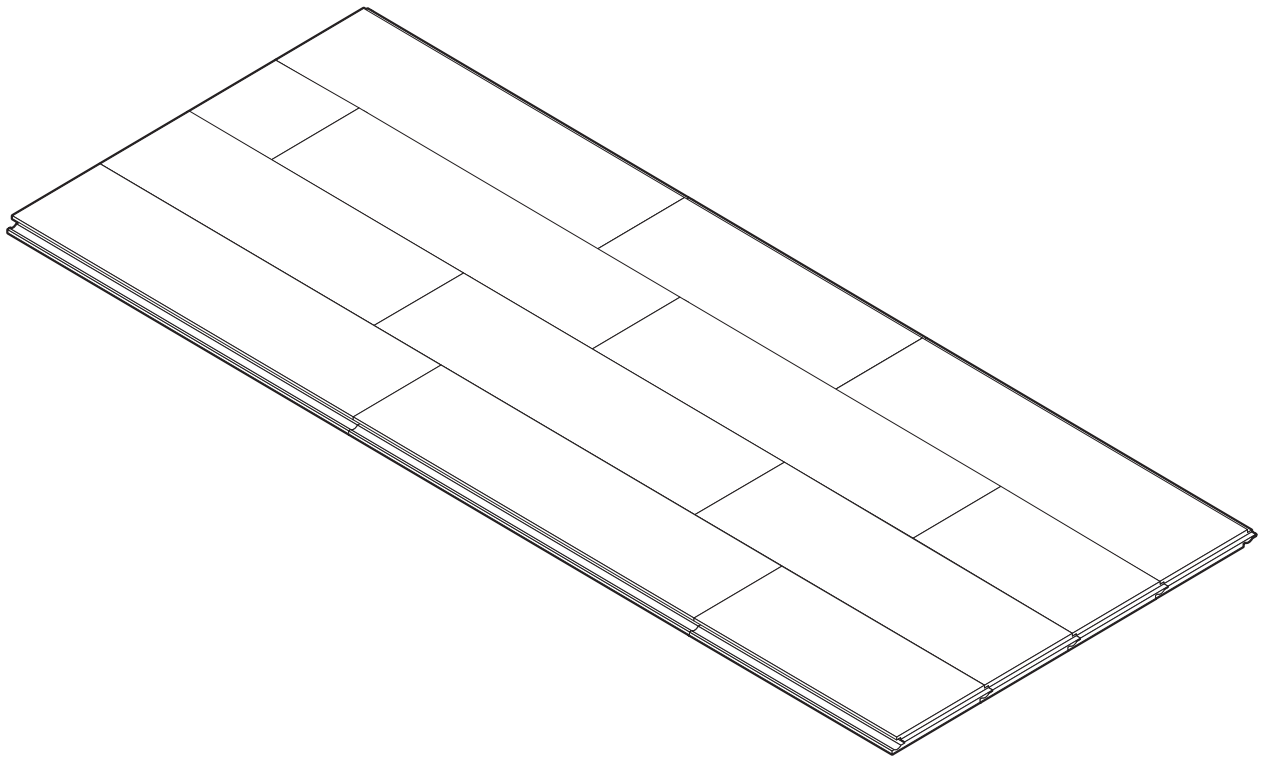
styleselections™

ITEM #0772303, 0772308

LOCKING ENGINEERED HARDWOOD FLOORING

MODEL #LUO45-78, LUB25-98

Español p. 14



ATTACH YOUR RECEIPT HERE

Serial Number _____ Purchase Date _____

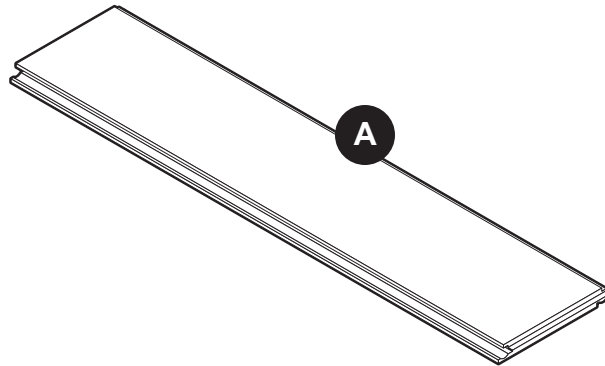


Questions, problems, missing parts? Before returning to your retailer, call our customer service department at 1-877-888-8225, 8 a.m. - 8 p.m., EST, Monday - Friday.

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PACKAGE CONTENTS



PART	DESCRIPTION	QUANTITY
A	Plank	23.25 sq. ft. per ctn.

SAFETY INFORMATION

Please read and understand this entire manual before attempting to assemble or install the product.

WARNING: Wood Dust

- Cutting, sanding or machining wood products produces wood dust. While wood products are not hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), the International Agency for Research on Cancer (IARC) and the state of California have classified wood dust as a human carcinogen.
- Airborne wood dust can cause respiratory, skin and eye irritation. Power tools should be equipped with a dust collector. Use an appropriate NIOSH-designated dust mask. Avoid dust contact with skin and eyes.
- In case of irritation flush eyes with water. If needed seek medical attention. If dermatitis occurs, seek medical attention.
- **PROPOSITION 65 WARNING:** This product contains chemicals known to the state of California to cause cancer.
- The products in this carton **DO NOT** contain asbestos or crystalline silica.
- **DO NOT MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES.**
- **DO NOT** sand existing resilient tile, sheet flooring, backing or felt linings. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.
- **IMPORTANT HEALTH NOTICE FOR MINNESOTA RESIDENTS 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 call your local health department.

BEFORE YOU BEGIN

Important Information

- All work involving water or moisture (plumbing, masonry, waiting, plastering) must be completed prior to flooring installation. Building envelope must be complete and exterior doors and windows installed. Exterior grading and gutter downspouts should be completed and permanent HVAC systems in operation.
- Precautions should be taken to protect floors from other trade work. **DO NOT** cover floors with plastic, red rosin, felt or wax paper or previously used cardboard. Instead, use a breathable material such as clean, dry, plain uncoated cardboard or craft paper; inks from printed cardboard could damage the hardwood floor. The floor should be thoroughly cleaned before covering to remove grit and debris that would damage the finish. The floor must be completely covered to eliminate uneven ambering from exposure to UV light.
- Room temperature should be 60-80°F, with relative humidity between 35-55%. These environmental conditions are specified as pre-installation requirements and must be maintained for the life of the product. Additionally, any HVAC system must be in operation for a minimum of 14 days prior to performing moisture tests or installation.
- Building interiors are affected by two distinct humidity seasons—Heating and Non-Heating. Care should be taken to maintain humidity levels between 35-55% year round. As with all wood flooring, expansion and contraction will be minimized if the interior relative humidity is consistently maintained year round. Humidification and/or dehumidification systems may be necessary to maintain your home environment to prescribed relative humidity conditions.
- All heating methods create dry, low humidity conditions. Humidifiers are recommended to prevent excessive shrinkage or gapping in wood floors due to seasonal periods of low humidity.
- During the non-heating season proper humidity levels should be maintained by using an air conditioner or dehumidifier.
- **DO NOT** install this product in full bathrooms.
- Purchase an additional 5% of flooring to allow for cuts and additional 10% if installing diagonally.

BEFORE YOU BEGIN

Pre-Installation and Jobsite Conditions Acclimation

- Manufacturer requires engineered hardwood products to be acclimated for a minimum of 48 hours prior to installation. Acclimation allows flooring to achieve equilibrium moisture content (EMC) with the installation environment. All wood continually expands and contracts until it reaches moisture equilibrium with the environment in which it's installed.
- **DO NOT** deliver wood flooring to the jobsite or install wood flooring until appropriate temperature and humidity conditions have been achieved. Flooring should be delivered and stored inside the HVAC controlled portion of the jobsite for a minimum of 48 hours prior to installation to allow the product to acclimate. Flooring should be stacked with at least a 4 in. airspace under the cartons. Remove any and all plastic wrap that may have been used to ship the material.
- Make certain the room temperature where the product is acclimated is set to normal living conditions as described above. To reduce the risk of moisture related failures, the subfloor and wood flooring must be of similar moisture content. Test the subfloor by taking a minimum of 20 moisture content readings per 1000 square feet of subfloor using a pin-type moisture meter. Average these readings and record them in the Pre-Installation Subfloor Moisture Testing section below.
- Likewise, check the wood flooring moisture content and record on the same sheet. When both the subfloor and flooring are below 12% moisture content and the flooring is within 4% of the subfloor moisture, acclimation is complete. The flooring is acclimated and ready for installation only when it has reached a moisture content level consistent with the jobsite and normal living conditions.
DO NOT install the floor until these moisture conditions are met.

Note: To increase reliability, subfloor appropriate moisture testing should be performed after the HVAC system has been in operation for a minimum of 14 days. Excess moisture on any flooring substrate if not identified and corrected prior to installation will cause floor covering failure. Warranties **DO NOT** cover any problems due to moisture levels that exceed these guidelines.

Pre-Installation Subfloor Moisture Testing

Use this section to record pre-installation moisture content readings.

Wood Subfloor

Date: _____ Installation Company: _____

Moisture readings taken by: _____

Moisture Content: _____ % Average Moisture Content of Subfloor
 _____ % Average Moisture Content of Hardwood
 _____ % Difference between subfloor and flooring

Concrete Subfloor

Date: _____ Installation Company: _____

Moisture readings taken by: _____

Test method used: ____ Calcium Chloride (ASTM F1869) ____ RH (ASTM F2170-02)1869 ____ Electronic Meter (Tramex or equivalent)

Moisture Readings: _____

Subfloor Requirements

- These recommendations are not intended to supersede federal, state or local building codes, but as with many other interior finish products, may require modifying existing structural components for a successful installation. Hardwood flooring is not a structural component. The product warranty does not protect against loss caused by inadequate subfloors, flooring substructures or improper installation of said substructures.

All subfloors should be:

- **Clean**—Subfloor must be clean and free of dirt, curing compounds, drywall mud, wax, paint, oil, sealers, adhesives and other debris. These may be removed mechanically. Do not install over chemically cleaned substrates.
- **Flat**— Must be 3/16 in. with 10 ft. radius and/or 1/8 in. with 6 ft. radius. Sand high areas or joints. Fill low areas with a high-compressive strength (3000 PSI min.) cement-based underlayment filler.
- **Dry**—Wood floor moisture should be evaluated using the guidance supplied above under the heading "Acclimation". Concrete subfloors must be cured for a minimum of 30 days. The moisture content of a concrete subfloor should be tested using a Calcium Chloride test (ASTM-F-1869 or ASTM F-710) and show no greater than 3 lbs. per 1,000 square feet in 24 hours or in accordance with ASTM F2170 latest version RH in-situ probe. If moisture levels exceed these limits, **DO NOT** install the flooring until appropriate corrections are made.

Structurally Sound Wood Subfloors

- Screw down any areas that are loose or squeak. Wood panels should exhibit an adequate fastening pattern, glued/screwed or nailed as that system requires, using an acceptable nailing pattern. Typical: 6 in. along bearing edges and 12 in. along intermediate supports. Flatten edge swell as necessary. Replace any water-damaged, swollen or delaminated subflooring or underlayment.
- Building codes establish requirements for structural support components of flooring systems that may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Whenever possible, install flooring perpendicular to the floor joists for maximum stability.

BEFORE YOU BEGIN

Note: When joist spacing exceeds the traditional 16 in. center, manufacturer recommends you apply a thin bead of tongue groove glue to the bottom side of the groove to lock the tongue and groove profile in place. This will reduce the potential for movement of the tongue and groove, which may contribute to squeaking or crackle. When using this method of installation, you may continue to choose to staple or nail down the hardwood, depending on your preference.

Note: Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene membrane is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist should be no less than 18 in. and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation.

Structurally Sound Concrete Subfloor

- Concrete substrate should be at least 30 days old, constructed in accordance with ASTM E1745. Level substrate and fill all cracks, holes and low spots with a polymer-modified cement patch or leveling compound. Burnished or steel troweled concrete substrates must be inspected for porosity by placing a few drops of water on the surface. If the water is not absorbed within 3 minutes, the substrate should be considered non-porous. Abrade the surface with 30-grit sandpaper until porosity is achieved. Glued down floors may be applied to concrete with a rating of 3000 PSI or greater; glued down application over lightweight concrete (less than 3000 PSI) is not permissible.

Wood Subfloors

The approved underlayment floor panels should meet or exceed the following:

- **Plywood**—Must be minimum CDX grade (exposure 1) and meet US Voluntary Product Standard PS1 performance standard or Canadian performance standard CAN/CSA 0325-0-92. The preferred thickness is 3/4 in. as a subfloor [minimum 5/8 in.] or 3/8 in. as floor panel underlayment.
- **Oriented Strand Board (OSB)**—Conforming to US Voluntary Product Standard PS2 or Canadian performance standard CAN/CSA 0325-0-92 construction sheathing. Check underside of panel for codes. When used as a subfloor, the panels must be tongue-and-groove and installed sealed side down. Minimum thickness to be 23/32 in. when used as a subfloor or 3/8 in. as floor panel underlayment.
- **Wafer board and Chipboard**—Conforming to US Voluntary Product Standard PS2 or Canadian performance standard CAN/CSA 0325-0-92. Must be 3/4 in. thick when used as a subfloor and 3/8 in. thick when used as floor panel underlayment.
- **Particleboard**—Floating installations only. Must be a minimum 40 lb. density, stamped underlayment grade and 3/4 in. thick.

Solid Wood Subfloors—Direct Glue or Staple Down Applications

- Minimum 3/4 in. thick with a maximum width of 6 in. installed at a 45° angle to the floor joists.
- Group 1 dense softwood (Pine, Larch, Douglas fir, etc.) No. 2 common, kiln dried with all board ends bearing on joists.
- For direct glue-down applications, add 3/8 in. approved floor panel underlayment.

Existing Wood Flooring—Direct Glue or Staple Down Applications

- Existing engineered flooring must be well bonded/fastened. When gluing over existing wood flooring, the surface finish must be abraded or removed to allow adequate adhesive bond.
- Existing solid hardwood flooring that exceeds 6 in. in width must be covered with 3/8 in. approved underlayment and fastened as required.
- **DO NOT** install over solid or engineered flooring attached directly to concrete.
- Wood subfloors should be well nailed or secured with screws. Nails should be ring shank and screws need to be countersunk. The wood subfloor needs to be structurally sound. If subfloor panels are a single layer, less than 3/4 in. thick, add another single cross layer for strength and stability (minimum 3/8 in.).
- Underlayment floor panels must be installed sealed side down. When used as a subfloor, allow 1/8 in. expansion space between each panel. If spacing is inadequate, cut in with a circular saw. Do not cut in expansion space on tongue and groove panels. When installing parallel to the floor joists it may be necessary to increase rigidity of the structural sub-floor system by installing an additional minimum of 3/8 in. approved underlayment floor panel.

Radiant Heat Subfloors

- This product is **NOT** recommended for installation over radiant heat floor systems.

Concrete Subfloor—Lightweight Concrete

- Gluing of engineered wood flooring is not recommended over lightweight concrete subfloors. To test for lightweight or acoustical concrete, scrape a coin or key across the surface of the subfloor. If the surface powders easily or has a dry density of 100 pounds or less per cubic foot, the flooring should not be installed.

Subfloors Other Than Wood or Concrete

- Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayments and must be removed. Terrazzo, vinyl, resilient tile, cork and linoleum or hard surfaces that are dry, structurally sound and level are suitable as a subfloor. As above, the surface must be sound, tight and free of paint, oil, existing adhesives, wax, grease and dirt. Terrazzo and ceramic tile must be scuffed to assure adhesion.

BEFORE YOU BEGIN

General Tips—Tapping the Planks Together

When tapping the planks together, the following process works best:

- Using a tapping block with a rubber mallet, lightly tap each piece until the plank lays flat. **DO NOT FORCE THE PLANKS DOWN FLAT**. Start tapping in the plank at the opposite end along the length, working from left to right and making sure the plank fully engages as you progress down the length.
- When end joint is slid into place on the preceding plank, raise the plank now being installed to an approximate 45° angle while setting the side joint into place.
- When you have the plank in place, lower the plank while tapping it until plank is lying flat and locked in place.
- The initial rows, when you are not against a firm starting structure, may seem more difficult to engage than the following rows.
- The tapping block is needed to distribute equal force across the tongue without any damage. For best results, slide the tapping block along the subfloor and row, tapping lightly with a rubber mallet, while using tapping strokes to engage the locking system. If the planks will not go together, check to see if the planks are moving against the wall with the strikes. If so, adjust wood wedges to firm up or use the fasten-down method instead.

PREPARATION

Before beginning installation of product, make sure all necessary materials are gathered and/or purchased.

Estimated Installation Time: Varies based on size of jobsite as well as installer's skill level.

Tools Required for Installation (not included): Safety glasses, NIOSH-approved dust mask, wood/concrete moisture meter, broom or vacuum, chalk line, starting row wedges, tapping block, pry bar or trim puller, tape measure, pencil, jamb saw, miter saw, table saw, utility knife, appropriate adhesive, trowel, wood wedges, coordinating stain, filler or putty, plastic scraper.

Accessories Needed: 15 lb. felt or rosin paper, flooring adhesive, coordinating transition strips or molding, approved hardwood flooring cleaner recommended by the manufacturer.

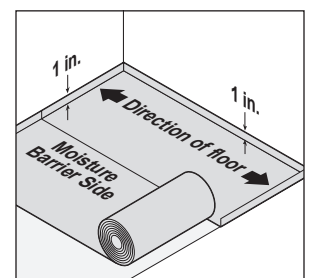
For All Types of Installations

Undercut all door casings 1/16 in. higher than the thickness of the flooring materials being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or use a power jamb saw set at the correct height. Remove all moldings and wall-base, and undercut all door casings.

- **DO NOT** install flooring if moisture tests results exceed recommended limits.
- Plan your layout and determine the direction of the installation in the room. Planks installed parallel to windows accent the hardwood best.
- Blending of cartons: To achieve a uniform installation appearance, preselect and set aside hardwood planks that blend best with all trims and moldings. Install these planks next to best blended moldings.
- Remove all wall mounted moldings such as base and quarter round.
- Floor should be installed blending planks from several cartons to ensure good color and shade mixture throughout the installation.
- Be attentive to staggering the ends of the boards at least 4-6 in. when possible, in adjacent rows.
- **DO NOT** use a rubber mallet without a tapping block to install flooring. Striking the surface with a rubber mallet may "burn" the finish causing irreparable damage.

Floating Installation

- Underlayment requirements are very critical to a floating installation. Excessive pad compression or compaction is a common cause of seam failure. Lay the underlayment on the floor with the moisture barrier facing up. The direction of the underlayment should be parallel to the direction of the floor being installed. For the first row of flooring, the underlayment should be placed so that approximately 1 in. overlaps onto all perpendicular walls. Place the following row next to the first row on top of the lower moisture barrier overlap. Make sure the underlayment fits together tightly (don't leave gaps). On the last row, place the underlayment 1 in. up the wall. To join rolls on the short side of the underlayment, use a moisture resistant tape to connect the 2 pieces so water cannot penetrate the underlayment.



PREPARATION

Glue-down Installation

- Make sure the floor covering materials are well bonded to the subfloor/underlayment with full spread adhesive and no more than two layers thick, not to exceed 3/16 in. With approved wood/wood composite sub-floors, if vinyl or tiles are loose, broken, or in poor condition, install a 3/8 in. approved subfloor panel directly over the flooring materials. Clean the flooring materials as necessary to remove waxes, sealers or cleaning residues to allow a good adhesive bond. Cork floor sealers and surface treatments must be removed. Always perform a bond test prior to beginning direct glue installation.
- Spread adhesive using recommended trowel, ensuring 95 to 100% adhesive contact. Wet Lay method: press flooring firmly into adhesive immediately after troweling. After the flooring is place, roll the entire installation with a 75 lb. smooth roller.
- Inspect the installation and remove any adhesive smudges or drops immediately using mineral spirits.
- Regulate temperature and humidity 72 hours before, during and after installation.
- Clean tools while adhesive is fresh using a urethane adhesive cleaner or mineral spirits.
- Avoid light/regular traffic for at least 12 hours. Avoid heavy traffic for at least 24 hours.
- See adhesive manufacturer guidelines for **open time** on the adhesive container.
- Proper ventilation within the room must be provided. An electric fan is helpful.

Adhesive Selection

- Use adhesives and sealers that meet or exceed manufacturer's specifications as specified below.
- Select adhesive based on Adhesive Selection Guidelines chart provided.

Note: Follow all guidelines set by the adhesive manufacturer as well as the flooring manufacturer. By not adhering to the guidelines, you can void your flooring warranties.

Note: Acceptable subfloor moisture condition requirements will vary dependent upon your selection of adhesive. Adhesive moisture requirements are not interchangeable between adhesives and vary dependent upon the subfloor type and conditions. The subfloor moisture requirement and test for each adhesive is outlined in the Adhesive Selection Guidelines chart on page 8.

To correct any subfloor conditions concerning moisture, either wait until the subfloor dries to meet specifications or use an appropriate moisture barrier.

Adhesive Application

There are two ways to install when using a moisture cured urethane wood flooring adhesive (wet lay, meaning to lay directly into wet adhesive; and dry-lay, meaning to allow the adhesive to flash or to tack up.)

- **Wet-lay method:** Press flooring firmly into adhesive immediately after troweling.
- **Dry-lay method:** Press flooring firmly into adhesive after it has developed its initial grab (typically, after 15 to 20 minutes).
- Remove any adhesive smudges or drops immediately as adhesive is very difficult to remove once allowed to dry. Clean tools while adhesive is fresh using a urethane adhesive remover or mineral spirits.
- Use clean white terry cloth towels with mineral spirits to clean as you go. It is easy and convenient to use. Adhesive that has cured on the surface of the flooring can be difficult to remove.

Note: Urethane adhesive is very difficult to remove once dry and cured. Make every effort to prevent adhesive from getting on the flooring surface. For best results, keep a urethane adhesive cleaner or mineral spirits nearby to remove any adhesive smudges or drops during installation.

PREPARATION

ADHESIVE SELECTION GUIDELINES		
ADHESIVE TYPE	SUBFLOOR REQUIREMENTS	USES
Low VOC saline terminated polymer adhesive	Concrete: <ul style="list-style-type: none"> Above grade concrete substrates where excessive moisture may be present Floor pH must not exceed 11 	<ul style="list-style-type: none"> For protection from concrete moisture up to 95% RH Sound reduction in multi-story buildings Crack suppression for in plane cracks up to 1/8 in. wide
High tri-polymer formula adhesive	Wood: <ul style="list-style-type: none"> Wood substrates should test less than 12% using a wood moisture meter Concrete: <ul style="list-style-type: none"> Up to 85% RH Levels using In-situ Probes in accordance with the latest version of ASTM F 2170. Floor pH test results must be between 7.0 - 9 Test for sealers and curing compounds 	<ul style="list-style-type: none"> For protection from concrete moisture up to 85% RH Will not etch the finish on a pre-finished board May be used on properly prepared concrete or wood substrates
Moisture curing urethane adhesive	Wood: <ul style="list-style-type: none"> Substrates should test less than 12% using a wood moisture meter Concrete: <ul style="list-style-type: none"> Less than 3 lbs/1,000 sq. ft./24 hrs. Calcium Chloride Test (ASTM F1869) Up to 75% RH Levels in Concrete Using In-situ Probes in accordance with the latest version of ASTM F 2170 Test for sealers and curing compounds 	

Important: Only manufacturer specified trowels and application methods are to be used with adhesives; otherwise, the product performance warranties and liabilities will be made void. Use of these or products with equal or greater specifications are necessary for warranty compliance.

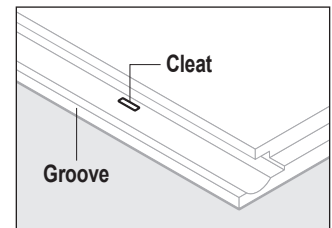
Note: **ALWAYS** REFER TO THE SPECIFIC INSTRUCTIONS ON THE FLOORING ADHESIVE LABEL. The information given here is for typical installation. Adjust it according to adhesive manufacturer's instruction.

Fasten-down Installation

Locking engineered hardwood may be mechanically fastened to the floor using flooring cleats only. Staples are not recommended.

- The recommended floor nailer is a 20-gauge, L-cleat, pneumatic nailer.
- Cleats must be placed into the locking portion on the groove side edge of the plank.
- Adjust the nailer for proper cleat placement.
- Adjust air pressure to 70 PSI to start, then adjust air pressure accordingly to get the proper depth.

Note: In addition to the ground cover in the crawlspace, 15 lb. felt or rosin paper must be installed over the sub-floor prior to the installation of the engineered wood flooring in order to reduce squeaks and noises created by the opposing floors.

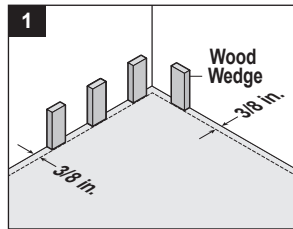


For **FLOATING INSTALLATION INSTRUCTIONS**, proceed below. For **GLUE-DOWN INSTALLATION INSTRUCTIONS**, skip to page 10, and for **FASTEN-DOWN INSTALLATION INSTRUCTIONS**, skip to page 11.

FLOATING INSTALLATION INSTRUCTIONS

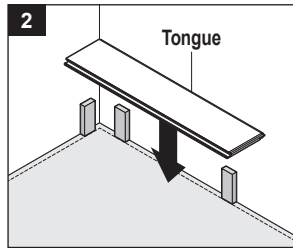
1. Use wood wedges (not included) to create a 3/8 in. expansion gap between the walls and installed planks.

Note: An expansion space of at least 3/8 in. must be maintained around the perimeter of the room, all pipes, counters, cabinets, fireplace hearths, doorframes and any other fixed vertical objects in the room. Doorway or archways 48 in. or less and rooms larger than a 26 ft. x 33 ft. are required to have a T-Molding (not included).



2. Beginning in left hand corner of the room, place first plank (A) with the tongue side facing the wall firmly against the wood wedges.

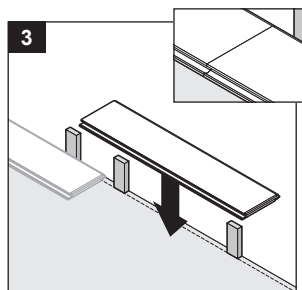
Note: Often walls are not structurally square. Planks in first row may need to be scribed and cut to contour with the wall. It is important that planks follow wall. Mark plank with a scribing tool (follow the shape of wall) then cut it lengthwise to follow the line.



3. Overlap the end joint of second plank (A) onto the one previously installed. Continue placing succeeding planks (A) in the same way to complete row. Cut the last plank (A) accordingly.

Note: The last plank of the first row may have to be cut to size.

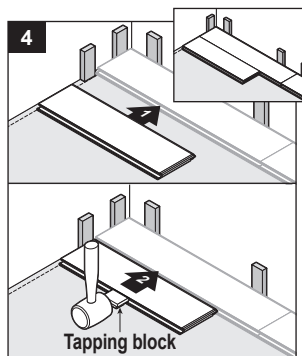
Note: Ensure the first row is straight before proceeding with the installation.



4. For first plank (A) of second row, align the side of new plank (A) against the first plank (A) in row 1. Then, set tapping block (not included) against plank (A) and tap it lightly with rubber mallet against the previously laid plank (A) until it is secure.

Note: End joints on adjoining rows should be offset by no less than 6 in. When possible, use leftover plank from the first row to begin the second row. If the cut piece is shorter than 6 in., **DO NOT** use. Instead, begin with a new plank that exceeds 6 in.

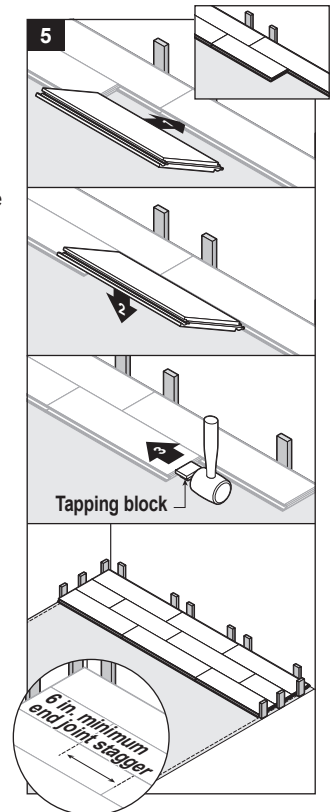
Note: Refer to the tapping block tips on page 6.



5. Repeat steps 3 and 4 for the remaining planks (A) in the rest of the second row and the remaining rows

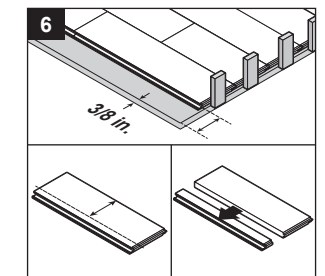
Note: Move rows if necessary to ensure there are no undesirable joint patterns. The row's end joints should be random throughout the floor.

Note: The first three rows are staggered, ensuring offset of previous row with end joints are no closer than 6 in. from one another. When the planks are being tapped in place, a non-random pyramid or stair step pattern is used to ensure the planks remain engaged through the force of the tapping.



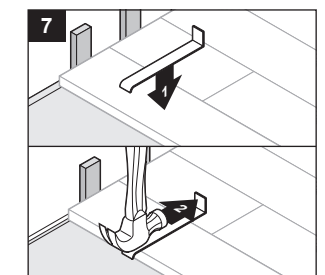
6. Most often, the width of the entire length of the last row will need to be cut so it is narrow enough to fit the remaining space. Measure the distance between the floor face edge (exclude the tongue) to the wall. Subtract 3/8 in. from this measurement for expansion gap. Draw a line on the planks (A). Cut the planks (A) using an electric circular saw with finish saw blades (not included) along the marked line. Discard the excess pieces.

Note: The blade should cut into the face of the board to prevent splinters. Care must be taken to prevent scratching the face of planks.



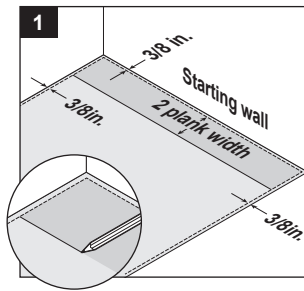
7. When installing last row of planks (A), use a pull bar (not included) to draw the last row to fit tightly into previous row.

Installation is now complete.



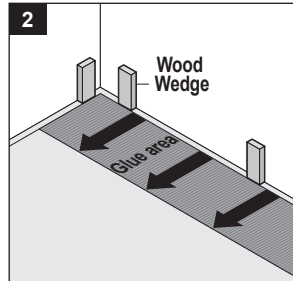
GLUE-DOWN INSTALLATION INSTRUCTIONS

1. Measure out from wall the width of two planks plus 3/8 in. for the expansion gap and mark each end of the room. It is recommended you start the installation along an exterior wall, as it is more likely to be straight and square with the room.



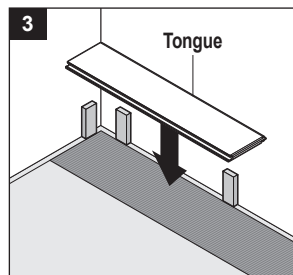
Note: Use board or spacers during installation to maintain expansion space of at least 3/8 in and to keep rows straight.

2. Using a trowel (not included), spread necessary adhesive (see pages 11-12) from marked line to the starter wall.



Note: Use of a correct trowel at a 45° angle is imperative to achieve the proper spread of the adhesive, which creates a proper bond; an improper bond can cause loose or hollow spots. Make sure to change the trowel every 2,000 - 3,000 sq. feet (or sooner, as needed) as the wear down of the dimples will cause an improper spread of the adhesive.

3. Place the first plank (A) with the tongue side facing the wall, ensuring there is 100% contact between the plank (A) and adhesive by pressing down firmly on plank (A).

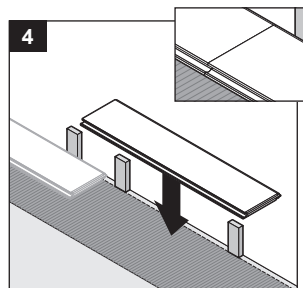


Note: Often walls are not structurally square. Planks in first row may need to be scribed and cut to contour with the wall. It is important that planks follow wall. Mark plank with a scribing tool (follow the shape of wall) then cut it lengthwise to follow the line.

Note: Alignment is critical and can be achieved by securing a straight edge along the line or by top nailing the first row with finishing nails (wood subfloor) or adjustable spacers (concrete subfloor). This prevents slippage of the planks that can cause misalignment.

Caution: Any adhesive that comes in contact with face of plank should be removed immediately. Use adhesive remover recommended by manufacturer.

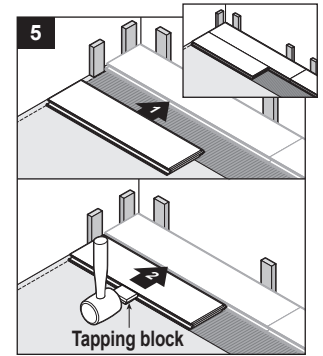
4. Overlap the end joint of second plank (A) onto the board previously installed. Continue placing succeeding planks (A) in the same way to complete row. Cut the last plank (A) accordingly.



Note: The last plank of the first row may have to be cut to size.

Note: Ensure the first row is straight before proceeding with the installation

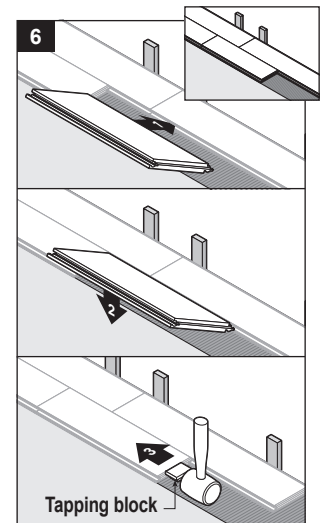
5. For first plank (A) of second row, align the side of new plank (A) against the first plank (A) in row 1. Then, set tapping block (not included) against plank (A) and tap it lightly with rubber mallet against the previously laid plank (A) until it is secure.



Note: End joints on adjoining rows should be offset by no less than 6 in. When possible, use leftover plank from the first row to begin the second row. If the cut piece is shorter than 6 in., do not use. Instead, begin with a new plank that exceeds 6 in.

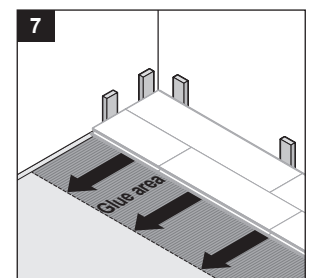
Note: Refer to the tapping block tips on page 6.

6. Hold next plank (A) to be installed at about a 45° angle and set the side joint in place. Place tongue into groove of plank (A) or strips and press firmly into adhesive. Use tapping block to fit planks (A) snug together at side and butt ends. Continue placing succeeding planks to complete row.



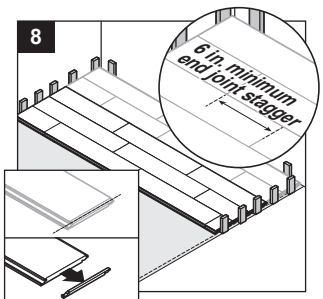
CAUTION: Never slide planks through adhesive and NEVER work on top of the flooring.

7. Once the starter rows are secure, spread 2-1/2 to 3 ft. of adhesive the length of the room.



CAUTION: Never lay more adhesive than can be covered in approximately 1 hour.

8. Repeat steps 5-7 to install remaining planks (A) in rows.

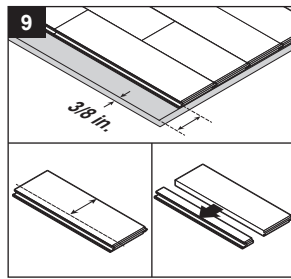


Note: Be sure to stagger ends of planks correctly in adjacent rows to avoid clustering end joints.

Note: If the last plank of a row is a full plank, cut off the lower drop lock end.

GLUE-DOWN INSTALLATION INSTRUCTIONS

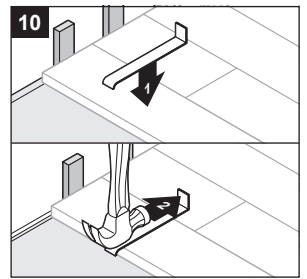
9. Most often, the width of the entire length of the last row will need to be cut so it is narrow enough to fit the remaining space. Measure the distance between the floor face edge (exclude the tongue) to the wall. Subtract 3/8 in. from this measurement for expansion gap. Draw a line on the planks. Cut the planks using an electric circular saw with finish saw blades (not included) along the marked line. Discard the excess pieces.



10. When installing last row of planks, use a pull bar (not included) to draw the last row to fit tightly into previous row.

Installation is now complete.

Note: Light foot traffic is allowed after 12 hours

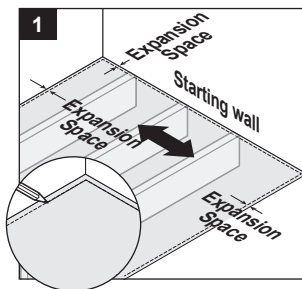


Note: The blade should cut into the face of the board to prevent splinters. Care must be taken to prevent scratching the face of planks.

FASTEN-DOWN INSTALLATION INSTRUCTIONS

1. Measure out from the ends of your starting wall the width of the plank (A) plus 3/8 in. for expansion and mark both ends. Where possible lay the flooring at 90° angles to the floor joists.

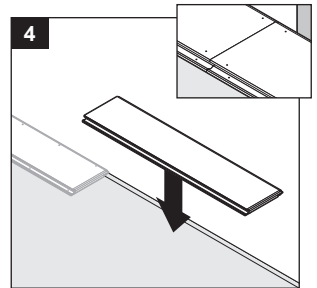
Note: Expansion space is required along the perimeter of room(s) of intended installation; expansion space is dictated by the thickness of the product.



4. Overlap the end joint of second plank (A) onto the one previously installed. Secure plank (A) as in previous step. Continue placing succeeding planks and secure to complete row.

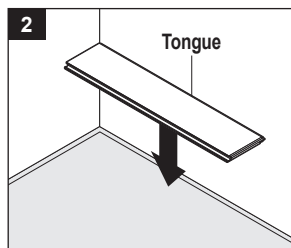
Note: The last plank of the first row may have to be cut to size.

Note: Ensure the first row is straight before proceeding with the installation.



Thickness of Product	Expansion Space Required
3/8 in. floor tile	3/8 in.
1/2 in. floor tile	1/2 in.

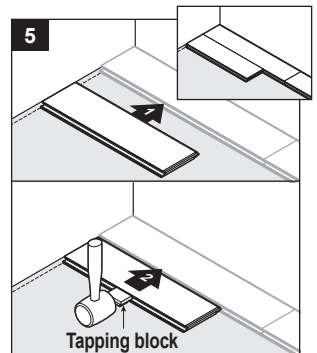
2. Beginning in left hand corner of the room, place plank (A) with the tongue side facing the wall against the marked line.



5. For first plank (A) of second row, align the side of new plank (A) against the first plank (A) in row 1. Then, set tapping block (not included) against plank (A) and tap it lightly with rubber mallet against the previously laid plank (A) until it is secure.

Note: End joints on adjoining rows should be offset by no less than 6 in. When possible, use leftover plank from the first row to begin the second row. If the cut piece is shorter than 6 in., do not use. Instead, begin with a new plank that exceeds 6 in.

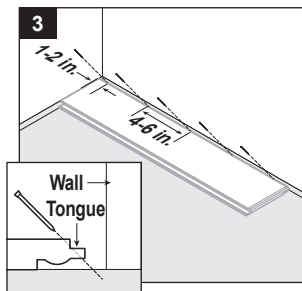
Note: Refer to the tapping block tips on page 6.



3. Blind nail at a 45° angle through the tongue 1 to 2 in. from ends and every 4-6 in. along the side.

Note: Pre-drill the holes in the tongue to make blind nailing easier. Or, a brad nailer with 1 to 1-3/8 in. brads (not included) can also be used to blind nail, making pre-drilling unnecessary.

Note: Countersink the nails. Place the nails in a dark grain spot in the board. Fill with a wood filler that blends with the flooring installed if no shoe molding is used. If base or shoe molding will be used it will cover the nails when installed after completion of the installation.

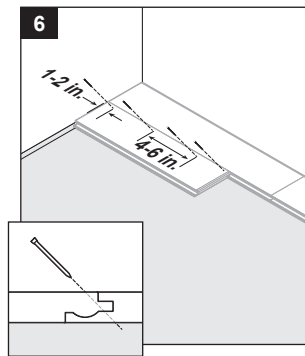


FASTEN-DOWN INSTALLATION INSTRUCTIONS

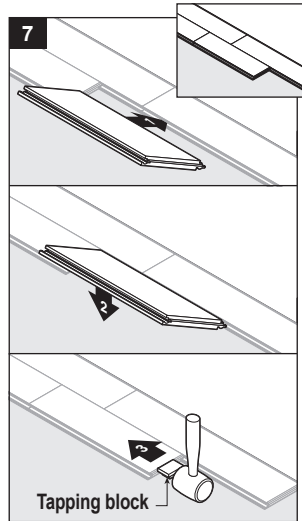
6. Blind nail at a 45° angle through the tongue 1 to 2 in. from ends and every 4-6 in. along the side.

Note: Pre-drill the holes in the tongue to make blind nailing easier. Or, a brad nailer with 1 to 1-3/8 in. brads (not included) can also be used to blind nail, making pre-drilling unnecessary.

Note: Countersink the nails. Place the nails in a dark grain spot in the board. Fill with a wood filler that blends with the flooring.



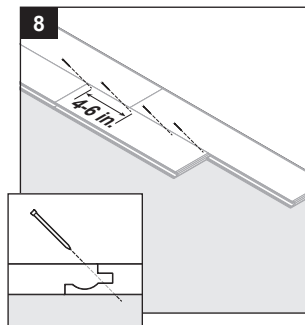
7. With end joint in proper position, hold next plank (A) to be installed at about a 45° angle and set the side joint in place. Lower the plank (A) while tapping with the tapping block until plank (A) is lying flat and locked in place.



8. Blind nail at a 45° angle along the edge groove every 4 to 6 in. Repeat steps 5-7 for first 3 rows.

Note: Pre-drill the holes in the tongue to make blind nailing easier. Or, a brad nailer with 1 to 1-3/8 in. brads (not included) can also be used to blind nail, making pre-drilling unnecessary.

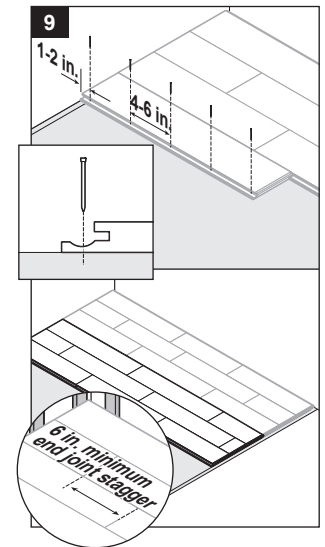
Note: Countersink the nails. Place the nails in a dark grain spot in the board. Fill with a wood filler that blends with the flooring.



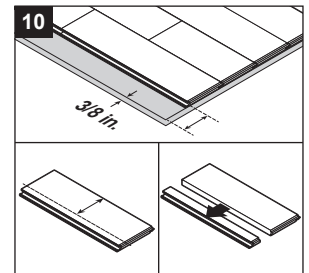
9. Repeat steps 5 and 7 to install remaining planks in rows. Secure with brads or finishing nails 1 in. to 2 in. from ends and every 4-6 in. along the edge of grooves.

Note: 45° blind nailing (done in step 6) is not necessary after the first three rows are installed.

Note: Be sure to stagger ends of boards correctly in adjacent rows to avoid clustering end joints.



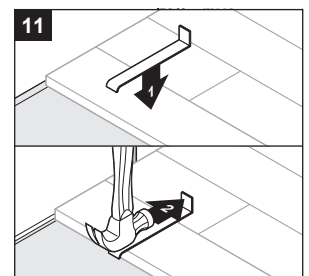
10. Most often, the width of the entire length of the last row will need to be cut so it is narrow enough to fit the remaining space. Measure the distance between the floor face edge (exclude the tongue) to the wall. Subtract 3/8 in. from this measurement for expansion gap. Draw a line on the planks (A). Cut the planks (A) using an electric circular saw with finish saw blades (not included) along the marked line. Discard the excess pieces.



Note: The blade should cut into the face of the board to prevent splinters. Care must be taken to prevent scratching the face of planks.

11. When installing last row of planks (A), use a pull bar (not included) to draw the last row to fit tightly into previous row. Secure plank with finishing nails or brads.

Installation is now complete.



FINISHING TOUCHES (OPTIONAL)

- Install the proper trim molding at the doorways to achieve the transition and along the walls to cover the edges of any gaps along the wall due to irregularity.
- Complete the job by using the wood filler that coordinates with the installed engineered flooring to fill any gapping along the joints or areas where brad nails were used in the trim or the flooring.
- Clean the finished floor with manufacturer recommended cleaner.

CARE AND MAINTENANCE

The best way to care for the new floor is to schedule routine maintenance, which includes sweeping the entire floor at least once a week to remove dirt and debris that may scratch the floor. High traffic areas such as entrances, doorways and traffic lanes will require cleaning more frequently.

- Apply a manufacturer recommended cleaner to a terry cloth or micro fiber mop; do not spray directly onto the floor. Use a back and forth motion with the mop. When the terry cloth or micro fiber cover becomes soiled, simply replace it with a clean one. Cleaning the floor with a soiled cover could cause streaking. The covers are re-usable; throw the cover in the wash and dry like a towel. **DO NOT** use fabric softener when washing terry cloth or micro fiber covers.
- Sweep regularly with a soft bristle broom or a vacuum designed for hardwood floors.

CAUTION: Vacuums with a beater bar, power rotary brush head or any steam cleaning device can damage a wood floor and should never be used.

- Remove spills promptly.
- Use felt protectors under heavy pieces of furniture and chairs.
- Use protective mats at all exterior entrances.
- **NEVER** use rubber or latex backed rugs on the floor. Rug pads should extend all the way to the edges of the rug to work properly. Regularly clean under rugs and rug pads.
- Spiked heels or shoes in need of repair can severely damage floor.
- Replace hard plastic, metal casters or wheels on furniture with soft rubber casters or use a protective mat under the casters.
- **NEVER** wet or damp mop the floors.
- **NEVER** use steam cleaners on the floor. This will force moisture into the finish and cause damage to the floor.
- **NEVER** use oil soaps, wax, liquid or other household products to clean the floor.
- Keep pet nails trimmed as recommended by your veterinarian.
- Protect the floor by using a clean, soft-rubber tired dolly for moving furniture or appliances.
- Use protective window coverings to protect hardwood floors from UV damage during periods of direct sunlight.

Transition Mats

Transition mats should be used at all exterior entrances to minimize tracked-in soil and reduce moisture during inclement weather.

WARRANTY

The owner/installer assumes all responsibility for final inspection of product quality. Examine flooring for color, finish and style **prior to installation**. If material is unacceptable, contact the seller immediately. Wood is a natural product and contains characteristics such as variations in color, tone and graining. Flooring is manufactured in accordance with industry standards, which allows manufacturing and natural deficiency tolerances up to 5% of the total installation. Installer should work from minimum of 3 cartons at the same time to ensure good color and shade blend. The installer must use reasonable selectivity and hold out or cut off piece with deficiencies. **DO NOT** install undesirable pieces. Flooring warranties **DO NOT** cover materials with visible defects once they are installed. Installation is acceptance of product quality.

It is the responsibility of the installer and owner to ensure that jobsite, environmental, subfloor and subsurface conditions involved meet or exceed all requirements as outlined in installation instructions prior to installation. Manufacturer declines all responsibility for product performance or installation failure due to subfloor, substrate or environmental deficiencies or jobsite conditions.

Manufacturer warrants the factory applied finish will not wear through or will not lack finish adhesion as a result of normal use. Additional structural warranty and moisture warranty may be applicable to this engineered hardwood.

WARRANTY NOTE: Installer should provide owner with one carton end label from product installed along with the pre-installation moisture content readings for warranty purposes. Owner should retain carton end label and copy of invoice with product style name and style number for their records and attach to the final page of these instructions. Owner should retain excess flooring and store in a climate controlled area for future repairs in the event flooring is damaged.

Not covered under warranty:

- Hardwood contains certain types of acids in their cellular structure. With exposure to sunlight these acids begin to amber. The color change is referred to as patina. The wood will reach its own natural warmth and patina level and stop ambering. The amount of patina is directly related to the species of the hardwood, amount of acids and the level of sunlight. The entire floor will reach the same patina level over time. This is often noticed after a rug is removed and the floor is noticeably different in color underneath. If you remove the rug and expose the entire floor to the same amount of light, it will even out over time and become uniform in color.
- Manufacturer warranties do not cover natural expansion and contraction that results in separation between planks, or damage caused by excessively low or high humidity. Seasonal gapping is not considered a manufacturing defect.

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