



DIAMONDLIVING Engineered Hardwood Flooring Installation Guidelines

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Note: Failure to follow the recommended installation procedures can void the warranty.

CAREFULLY EXAMINE ALL OF THE FLOORING PURCHASED BEFORE INSTALLING THIS MATERIAL; PLEASE EXAMINE FOR FINISH, COLOR, STYLE, ORDER AND QUALITY.

IF THE FLOORING PURCHASED IS NOT ACCEPTABLE, IMMEDIATELY CONTACT THE PERSON FROM WHOM YOU PURCHASED THE MATERIAL. THE MANUFACTURER WILL NOT ASSUME ANY RESPONSIBILITY FOR THE ABOVE ONCE THIS FLOORING HAS BEEN PERMANENTLY INSTALLED.

PLEASE READ BEFORE BEGINNING

It is **VERY IMPORTANT** that you read and understand the information contained below completely prior to starting, because improper installation can void the warranties.

INSTALLER/OWNER RESPONSIBILITY

Carefully inspect all material prior to installation for defects. Materials with visible defects that are installed are not covered under warranty. Always Remember – Wood is a natural product that will vary in color, grain, and contains natural characteristics that vary from plank to plank and should be expected. We do not warrant against these natural variations from plank to plank or variations from the sample provided to plank. Our material is manufactured to exceed the industry standards of (ANSI/HPVA EF 2002).

EQUIPMENT AND SUPPLES NEEDED:

- Broom or Vacuum
- Moisture Meter
- Safety Glasses
- Tape Measure
- Hand Saw
- Color Wood Filler
- Chalk Line & Chalk
- Electric Miter Saw
- Hardwood Floor Cleaner
- Hammer
- Safe Release Masking Tape
- Pry Bar

Warning: Wood Dust

The International Agency for Research on Cancer has classified wood dust as a nasal carcinogen. Wood dust can cause respiratory, nasal, eye, and skin irritations when becoming airborne from cutting, sanding, or other machining processes. Equipment should have a proper dust collector to reduce the presence of airborne dust. Wear an appropriate NIOSH designated dust mask to reduce exposure to airborne wood dust. Avoid contact with eyes and skin. In case of irritation, flush eyes or skin with water for at least 15 minutes.

PRE INSTALLATION & JOBSITE CONDITIONS

It is the responsibility of the installer/owner to ensure that the conditions and sub floor of the jobsite are environmentally and structurally acceptable prior to the installation of any DIAMONDLIVING flooring. The manufacturer declines any responsibility for deficiencies or failures of our flooring related to or resulting from sub-floor, job-site, or sub-surface environmental conditions. All substrates must be clean, dry, flat, properly adhered, and structurally sound.

- Sub floors must not contain dirt, curing compounds, sealers, paint, wax, drywall mud, grease, urethane, or other particles that can affect the integrity of the adhesive or flooring materials used to install the flooring.
- Manufacturer recommendations must be followed when installing all sub floor or sub floor systems, and these sub floors must be structurally sound. Local building codes may only state minimum requirements of the flooring system which may not provide the accurate rigidity and support for proper performance and installation of engineered hardwood floor. At all time possible install the floor planks perpendicular to the floor joists for maximum stability. **ANY** problems caused by inadequate substructures or improper installation of said substructures **ARE NOT** covered by our warranties.
- Test wood sub floors and flooring for moisture content using a pin-type moisture meter. The moisture content of the sub floor should not exceed 13% and the moisture content of the wood should be within a 4% range of the moisture content of the sub floor.
- The vapor-moisture content of concrete sub floors accounted for after a calcium chloride test should not be greater than 3 pounds per 1000 square foot area. **DO**

NOT install the flooring if it exceeds these limits. **The slab must be cured for a minimum of 60 days before moisture testing begins.**

- Basements and crawl spaces must be completely dry. Use of a 6 mil black polyethylene material is required to cover the entire part of the crawl space earth. Crawl space clearance from ground to underside of joist should be no less than 18” and a perimeter vent space equal to 1.5% of the total square feet of the crawl space area which will provide cross ventilation.
- The sub floor must be flat. Only allow a maximum of 3/16” within a 10’ area or 1/8” in a 6’ area.

Concrete Sub Floors – Use a Portland-cement-based leveling material (minimum compressive strength 3000 psi) to fill all low spots or grind high spots to level concrete sub floors. Follow the leveling compound manufacturer’s instruction. Leveling compounds should be allowed to thoroughly cure and dry prior to installation of wood flooring.

Wood Sub Floors – Use layers of 15lbs felt or wooden shims to fill low spots for staple down application. Make sure staples are able to penetrate for holding power.

- Make sure that all paint, drywall, concrete, masonry, plumbing, etc. is complete and dry well in advance of delivery of flooring.
- Gutters and downspouts should be in place and the exterior grade complete to allow for proper drainage of moisture away from the structures exterior perimeter.
- Flooring should not be exposed to large amounts of humidity or moisture.
- Permanent HVAC should be on and operational a minimum of 7 days and maintainer between 65-75 degrees and a relative humidity of 35%-55% prior to delivery, during, and after the installation of the flooring.
- If HVAC is not possible at time of installation the environmental conditions must be at or near normal living conditions between 60-80 degrees and at the average yearly relative humidity for the area.

It is the Installer/Owner responsibility to make sure that the conditions are acceptable prior to the installation of the flooring. The manufacturer refuses any and all problems with the flooring that are related to or attributed to inadequate jobsite conditions.

RECOMMENDED SUB FLOOR SURFACES

Concrete Sub Floors:

Concrete slabs should be of high compression strength and should prevent groundwater from penetrating the concrete. Engineered hardwood flooring can be installed on, above, or below-grade. It also can be installed over above-ground, suspended concrete floors. The concrete must be suspended a minimum of 1 ½ inches thick and must be structurally sound. The only exception to this is lightweight concrete (usually contains high amounts of gypsum) having a density of 100 pounds or less per cubic foot. Test for lightweight concrete by using a nail to scratch the surface of the concrete. If the concrete turns into

powder or crumbles, it is not solid and the flooring should not be installed. Use the floating installation method (products 3" or wider) for lightweight concrete floors.

For concrete sub floors a calcium chloride test must be performed. A minimum of 3 tests should be preferred on the first 1000 sq ft and then 1 test for each additional 500 sq ft. The calcium chloride test should be performed in random areas across the sub floor. Test results should not exceed 3 lbs. in any given area. Test results must be documented and a copy must be kept by the home/business owner for warranty claims. The slab must be cured for a minimum of 60 days before vapor-moisture testing begins.

Wood Sub Floors:

Recommended Sub Flooring – 3/4" (23/32", 18.3mm) CDX grade Plywood sub floor/underlayment (Exposure 1), 4'x8' sheets or 3/4" (23/32", 18.3mm) OSB sub floor/underlayment grade, PS2 rated, sealed side down, with joist spacing of 19.2" (475) on center or less.

Minimum Sub Flooring – 5/8" (19/32, 15.1mm) CDX grade Plywood sub floor/underlayment (Exposure 1), 4'x8' sheets, maximum 16" on center joist construction.

Follow panel manufacture's recommendations for spacing and fastening. Typical panel spacing and fastening for joist systems, 1/8" (3.2mm) around the edge and fastened every 6" (150mm) on bearing edges and every 12" (300mm) along intermediate supports. Installation of flooring should not be made over joists spacing greater than 19.2 on center or parallel to the joists unless the sub floor has been properly strengthened, applying a second layer of underlayment may be necessary to bring the overall sub floor thickness to 1-1/8".

- Test the moisture content of the wood sub floor and flooring with a pin type moisture meter. Wood sub floors cannot exceed 13% and must be within 4% of the flooring.
- For currently installed wood floors; install new flooring perpendicular to the existing flooring.
- Do not glue, nail, or staple down flooring over particle board, floating application is acceptable (products 3" or wider).
- Do not install over existing glue down hardwood floors.

Ceramic Tile and Terrazzo: All wax and sealers must be removed with an appropriate cleaner/stripper. Ceramic tile and terrazzo should be abraded to allow for proper adhesion. Make sure the tiles are not loose by tapping and re-adhering. Fill grout lines with cementitious latex fortified leveling compound.

Resilient Tile, Resilient Sheet Vinyl: Materials must be full spread and strongly secured to the sub floor. Do not install over floors that are perimeter glued. Do not install over more than one layer that exceeds 1/8" in thickness.

Nail/Staple Down Only – If old flooring is unsuitable to install new flooring on top of then overlay with new underlayment. Test to conclude that the staples/cleats are able to properly penetrate and secure the flooring to the sub floor.

Glue Down Only – Do not install over more than one layer that is over 1/8” thick. Make sure the flooring is cleaned with an appropriate cleaner and thoroughly dry. Use an abrasive pad to de-gloss the floor if needed to enhance the bonding of the adhesive. Completely remove any wax or other coatings present with a quality stripper; rinse the floor and allow to dry. Before installation, always check for proper adhesion bond.

CAREFUL: DO NOT SAND any resilient tile existing, flooring felt, or sheet vinyl flooring as they may contain asbestos fibers that are not identifiable. Asbestos dust can cause serious bodily harm. Before attempting removal of these floors, check local, state, and federal laws for handling hazardous materials.

Acoustic Cork Underlayment: (Glue Down Only) – Install the cork underlayment according to the manufacture’s instructions. Make sure that the cork underlayment is securely adhered to the sub floor. The cork underlayment must be made of pure granulated cork combined with a polyurethane binder with a minimum density of 11.4 lbs. per cubic foot and should not exceed 13 lbs. per cubic foot.

RADIANT HEATED SUB FLOORS

- Relative humidity should be maintained at 35%-55% at the jobsite. Use a humidification system to maintain the proper humidity level. Failure to maintain proper humidity level can result in excessive drying of the floor.
- The moisture content for concrete sub floors registered after a calcium chloride test should not be greater than 2 lbs. per 1000 square feet of area. If the amount is larger than this, **DO NOT** install the flooring.
- Floating installation only, directed glue down is not recommended.
- Before installation moisture testing should be conducted and documented per ASTM test method 1869-89 for concrete or using a pin type meter for wood sub floors.
- Before installation of flooring over a radiant heat system, it is important that the steps are followed in strict accordance. Not following the steps may produce unsatisfactory results.
- Sub-floor must be flat to 3/16” in 10’ or 1/8” in 6’.
- It is strongly recommended that the radiant heat system be designed specially to accept a wood floor.
 1. Use of an in-floor temperature sensor as well as a separate thermostat for the individual room is required.
 2. An outdoor temperature sensor should be used to adjust water temperature according to anticipate heat loss.

JOBSITE REQUIREMENTS

- Before installation of the flooring, the radiant system must be installed per manufacture’s instructions.
- Before floating installation of flooring material, the following conditions are required:

1. Moisture content of concrete must be less than 2 lbs. per Calcium Chloride test method (ASTM 1869-89). Wood sub-floors cannot exceed 13% and be within 4% of the wood flooring.
2. Concrete should be allowed to cure properly and dry a minimum of 4 weeks prior to operation of radiant heat system.
3. Operation of radiant heat system should be set to run at 2/3 maximum output for at least 2 weeks prior to installation of flooring to allow moisture from the concrete to dissipate and reach a final moisture content. This should be done in both heating and non heating seasons.
4. Prior to installation (at least 4 days) reduce to a temperature of 65 degrees.
5. Install flooring according to the floating floor installation guidelines. Use of a 2 in 1 underlayment is required.
6. When gluing planks, run a continuous bead of adhesive on the groove in both the end and length of the board.
7. Use a clean damp rag to remove any excess glue that squeezes onto the surface of the planks.

AFTER INSTALLATION AND DEASONAL OPERATION

- Slowly raise temperature of the heating to its preferred operating level over a period of 5 days 48 hours after completion of installation. **DO NOT allow the surface temperature to go higher than 82 degrees.**
- Humidity level must be maintained between 35%-55% relative humidity.
- Surface checking can be expected if the proper humidity level is not properly maintained between 35%-55% relative humidity or if the floor's surface temperature exceeds 82 degrees.
- Seasonal gapping should be expected.

PRE-INSTALLATION/ JOB PREPARAION

Inspect the Flooring – Inspect material for finish, color, milling, and grade. Hold out pieces that may not be acceptable once installed. **PLEASE NOTE: We do not accept responsibility for any cost incurred when planks with visible defects have been permanently installed.**

Undercut Door Casting – Undercut all door casing 1/8" higher than the thickness of the flooring being installed. Use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casting with a power jamb saw set at the correct height or a handsaw.

Mixing of Cartons – To achieve a uniform appearance across the entire floor, it is highly recommended that you open and work from several different cartons at a time and pre-lay the flooring, mixing the planks from several cartons. This will allow you to blend the planks for a maximum natural appearance. Make sure to view the flooring in a well lit area to ensure the color is consistent and that any visual defects can be seen and removed.

Match Transition Moldings – For best appearances blend all transitions and moldings to planks that have similar color and graining. Set them aside for use when needed.

Layout of Flooring – “Randomizing the Flooring” is necessary to achieve a random appearance. Use random-length planks found in the carton or cut four or five planks in random lengths, differing by at least 6 inches to start your installation. As you continue working across the floor try to maintain a 6 inch minimum between end joints. Randomly install different lengths to avoid patterned appearance. Never waste materials; the end cuts from starter rows can be used at the opposite side of the room to complete rows or used to start the next row.

Expansion Gap – Space around the perimeter is required and should be equal to the thickness of the flooring material. For floating installation the minimum is ½” regardless of the thickness of the material. For commercial installations use a minimum of ½” expansion.

GLUE DOWN INSTALLATION GUIDELINES

Additional Tools & Materials Needed:

- Parabonds Millennium 2002 or equivalent adhesive
- 3/16” x 3/16” x 3/16” or ¼” x ¼” x ¼” square notch trowel
- Rags
- Mineral Spirits/Urethane Adhesive Remover
- Safe Release Masking Tape
- Straight Edge

***NOTE:** For material 4 ½” wide or less use a 3/16” x 3/16” x 3/16” square notch trowel. For material wider than 4 ½” use a ¼” x ¼” x ¼” square notch trowel.

***NOTE:** When using the adhesive, you **MUST** install the flooring by standing on the sub floor, not standing directly or walking on the newly installed flooring during installation. Failure to follow this procedure can result in the planks moving during installation, creating gaps at both end and side joint.

DO NOT ROLL THE ADHESIVE.

Please refer to the Pre-Installation Job Prep information above before beginning the following instructions.

GETTING STARTED

1. Select a started wall. An outside wall is best; it is most likely to be straight and square with the room. Measure out from this wall at each end, with width of two planks including the tongue plus the space needed for expansion.
2. Snap a chalk line from these points, parallel to the wall.
3. Secure a straight edge inside the chalk line to act as a guide and to prevent the row of planks from shifting during installation. The straight edge could be a straight piece of lumber or a piece of flooring. Alternatively, the first row can be face-nailed with finishing nails into the wood sub floor or spring nailed into a concrete sub floor.

SPREADING THE ADHESIVE

Using the proper trowel, hold the trowel at a 45 degree angle to ensure proper spread rate of adhesive. Gently apply pressure to allow the trowel to leave ridges of adhesive on the substrate with little adhesive left between the ridges. This will help to achieve the proper spread rate of the adhesive. Temperature and airflow across the adhesive can have an affect on the open time of the adhesive. Please see the label of adhesive used for open airtime in lower and higher levels of humidity. Follow the adhesive manufacturer's instructions for use.

INSTALLING THE FLOOR

4. Spread adhesive from the chalk line/straightedge out to approximately the width of two planks. Install the first starter row of planks along the chalk line/straightedge and secure into position with the tongue facing the starter wall.

***NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring. When you have the starter rows complete you can begin the next row. Use safe release masking tape to hold the boards together tight and to prevent movement or gapping.**

5. When you are certain the first two starter rows are straight and secure, spread adhesive 2 or 3 feet wide across the length of the room. Never spread more adhesive than can be covered in 30 to 45 minutes. If the adhesive has dried over remove dried adhesive and trowel new adhesive.

6. Continue installing planks and push them into place. Place the tongue of the board into the grooves of installed boards and press into the adhesive. Use safe release masking tape to hold planks together and to reduce gaps and movement. As you continue working across the floor try to maintain a 6 inch minimum space between end joints. Randomly install different lengths to avoid pattern appearance.

***NOTE: Never hit a rubber mallet or hammer directly on the flooring to engage the tongue-and –groove. This can damage the flooring and/or the finish.**

7. Remove the adhesive from the surface of the installed flooring as you work. A clean rag with mineral spirits will remove the adhesive.

***NOTE: Clean the floor using mineral spirits or adhesive remover as you are working – DO NOT USE WATER. Frequently change the towels to avoid leaving a haze on the flooring surface.**

8. As you approach the end wall it may be necessary to cut the width of the last row. Be sure to allow for the expansion space along the end wall. Once the final cuts are made set planks into place.
9. After the floor is complete remove the straight edge and glue down the first two boards.
10. Allow 6-8 hours for foot traffic and 24 hours before moving furniture onto the floor.
11. Carefully remove the safe release masking tape 24 hours after installation is completed. Do not wait more than 24 hours to remove tape as it may damage your floor.
12. Clean any wet adhesive from the flooring with a lightly dampened clean cloth or sponge. If the adhesive has dried, use mineral sprits on a clean cloth.
13. A **SILICON** cocking must be applied in the gap around the perimeter between the wall and the floor before the molding is installed.

Final Inspection: After the floor has been cleaned, inspect the floor for nicks, scratches, gaps or planks the may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with touch up products. In typical climate, the new floor can accept foot traffic with 24 hours. In areas where additional curing time is required, more time may be needed. Please see adhesive label for necessary curing times.

NAIL OR STAPLE DOWN INSTALATION GUIDELINES

Additional Tools and Materials Needed:

- Drill
- Tapping Block
- Air Compressor
- Air Hose
- In-line Air Regulator
- Pneumatic Nailer/Stapler
- 15 lbs. Roofers Felt

Before you begin using the following instructions, please refer to the Pre-Installation Job Prep Information above.

***NOTE: Our products are not warranted against squeaking, popping, or crackling when using staple-down installation methods. Some squeaking, popping or crackling is normal and possible when using staple-down or nail-down installation methods. These problems may be aggravated in arid areas or during drying condition.**

SET UP AND USE OF PNEUMATIC STAPLERS AND NAILERS

Minor occasional noises within the flooring are normal for all staple/nail-down installations and can change as environmental changes occur. This is not a manufacturing defect and for this reason is not covered under our warranties. You can help reduce squeaking, popping, and crackling by being sure that the sub floor is structurally sound, does not have any loose decking or joist, and is swept clean prior to installation. You should be sure that your stapler or nailer is setting the fastener correctly, not damaging the planks, and that you are using the correct nailing schedule.

Staples or cleats can damage wood flooring when used improperly. If the tool is not adjusted properly the staples or cleats may not be positioned at the right angle and may cause peaking, blistering, crackling or squeaking of the floor. Some models may require the use of an adapter to adjust for proper thickness. Test the tool on a piece of scrap material first. Set the staple/nailer flush on the tongue side of the plank and install a staple/cleat. If the staple/cleat penetrate too deeply reduce the air pressure; if the staple/cleat is not deep enough then increase the air pressure using an in-line regulator. The crown of the staple/cleat should sit flush within the nail pocket to prevent damage to the flooring and reduce squeaking. The flooring manufacturer is not responsible for damage caused by the mechanical fasteners.

IMPORTANT NOTE: Only use manufacturer's recommended staple or cleats. For 3/8" thick products the minimum length staple/cleat is 1". For 1/2" thick products the minimum length staple/cleat is 1 1/4".

Read and follow the manufacturer's instructions for complete set-up and operation of equipment.

GETTING STARTED

1. After the sub floor has been properly cleaned and prepped cover the sub floor with 15 lbs. asphalt felt paper. This will help to keep the floor clean and help

- prevent moisture from below (there is no complete moisture barrier system for staple or nail down applications).
2. Select a starter wall. An outside wall is best, as it is most likely to be straight and square with the room. Measure out from this wall, at each end, the overall width of the plank.
 3. Snap a chalk line from these points, parallel to that wall.
 4. Install the first row along the chalk line/straight edge and secure into position with the tongue facing away from the starter wall. Drill pilot holes through the face of the plank every 6" (in the dark grain); approximately 1" from the back edge of the board and secure planks with 1" finishing nails. Countersink the nails and fill with the appropriate color wood filler and remove excess filler from the surface.
 5. Blind nail at 45 degree angle through the tongue 1"-2" from the end joints and every 6" in between along the length of the starter boards. Pre-drill the holes to make this easier. Depending on the width of the flooring it may be necessary to do this for the first few rows prior to using a pneumatic stapler/nailer.

***NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring.**

INSTALLING THE FLOOR

6. Continue to install the flooring making sure to nail/staple 1"-2" from the ends and every 3"-4" thereafter. Make certain the tool is adjusted properly to ensure that the fastener is at the proper angle and is flush within the nail pocket. As you continue working across the floor try to maintain a six-inch minimum space between the end joints. Randomly install different lengths to avoid a patterned appearance.
7. Use a tapping block if needed to help engage the boards together until the tongue-and-groove is flush and tight and no gaps are present between adjacent planks.
NOTE: Never use a rubber mallet or hammer directly on the flooring to engage the tongue-and-groove. This can damage the flooring and /or finish.
8. As approaching the end wall it might be necessary to cut the width of the last row - be sure to allow for the expansion along the end wall. Once the final cuts are made set planks into place.
9. The last few rows will need to be fastened by hand. To fasten the final planks into place, you must manually blind nail or face-nail through the surface on the final planks. Drill pilot holes at a 45 degree angle to the floor and blind nail using 1" finishing nails. Alternatively, drill pilot holes in the face every 6" (in the dark grain) and install with 1" finishing nails. Countersink nails and finish with the appropriate color wood filler and remove excess filler from the surface with a clean rag and proper cleaner.
10. A **SILICON** cocking must be applied in the gap around the perimeter between the wall and the floor before the molding is installed.

FLOATING FLOOR INSTALLATION GUIDELINES

(Products 3/8" and 1/2" thick, or 3" wider only)

Additional Tools and Materials Needed:

- Parabonds Millennium 2002 or equivalent adhesive
- Terry Cloth Towels
- Pry/Pull Bar
- Hardwood Floor Cleaner
- Foam Underlayment
- Safe Release Masking Tape
- 6 mil Poly Plastic Sheeting
- Tapping Block and Spacers

Before you begin using the following instruction, please refer to the Pre-Installation Job Prep information above.

- 6 mil poly plastic sheeting not required over a vinyl, wood, or wood product sub floor.
- 6 mil poly plastic sheeting is required over concrete type sub floors – grade or below grade.
- Do not install over carpet.
- If installing over vinyl, ensure that the vinyl is secure to the sub floor. Do not install over perimeter glued vinyl.
- If installing over an existing wood floor, install the flooring at right angles to the wood floor.
- Secure loose and creaking floorboards with screws.
- Do not install over wood flooring glued to a concrete sub floor.
- 1/2" of expansion space required at all vertical surfaces.

GETTING STARTED

1. Remove all doors and shoe moldings. Undercut all door casings 1/16" higher than the thickness of the flooring and underlayment to be installed. Place a scrap piece of plank and a sheet of underlayment against the door casing to act as a guide and cut the door casing with a power jamb saw set to the correct height or a handsaw.
2. After determining the direction to run the planks, measure the width of the room (dimension perpendicular to the direction of the flooring). The last row of the flooring should be no less than 1 1/2" wide; if less, cut the width of the starter row to avoid a narrow last row.
3. Choose a wall to start on. An outside wall is best: it is most likely to be straight and square to the room. Measure from the starting wall, at each end, the overall width of the plank plus 1/2" for expansion. If the first row requires ripping then measure from the wall the width of the ripped plank plus 1/2" for expansion.
4. Snap a chalk line from these points.
5. Install underlayment: Unroll the 6 mil Poly sheeting overlapping the edges of each roll 4" and seal seams with clear plastic tape. Allow the ploy to run 2" up

the wall and trim the overage after installation of flooring. Install 1/8" foam underlayment.

***NOTE: Use of a floating floor 2 in 1 underlayment may be used. Follow manufacturer's instructions for application installing the 2 in 1 underlayment.**

6. Before installing the flooring, secure a straight edge inside the chalk line to act as a guide and to prevent the row of planks from shifting during installation. The straightedge could be a straight piece of wood or a piece of flooring. This is only temporary and will be replaced as the floor is complete.

INSTALLING THE FLOOR

7. Spacers are recommended at the walls to maintain the expansion gap between the flooring and the wall.
8. Prior to gluing the planks, dry lay the first two rows of flooring. Always work from left to right installing the planks so that the groove faces the starter board. When you reach the end of the first row, cut the plank to the necessary size to fit. On the first 4 rows stagger the end joints a minimum of 16" and then 8" thereafter.
9. Use the remaining piece of the plank from the first row to start the second row. If the piece is less than 8" long, cut a new plank in half and use that piece to start the second row.
10. Lay the remainder of the planks in the second row. Be sure that the rows are straight and there are no gaps on the sides or ends. Once you have dry laid the first two rows, remove all the planks in order and you can begin permanent installation.
11. Begin gluing the boards; run a continuous bead of adhesive along the groove of the short side and glue the plank's side groove at 6" intervals. Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring.
12. Install first row of planks with the groove facing the straight edge. Work from left to right. Complete the first row. Make sure that there are no gaps between the boards. Use a tapping block if you need pressure to close the boards together. Immediately wipe away any excess adhesive with a clean, slightly dampened cloth.

CAFEFUL: Adhesive that is allowed to dry on the finish surface can be difficult to remove and may leave a haze.

13. At the end wall use an end pry bar, if needed to pull the ends of the plank tight.
14. Continue to install the floor working left to right, repeating the process until the completion of the floor. Continue to use the spacers on all vertical surfaces to maintain the expansion gap.

15. If needed after several rows of planks are installed use safe release masking tape to hold the planks securely together. **DO NOT USE** laminate straps as they may damage the flooring.
16. The last row will most likely require ripping to width but it should be no less than 1 ½” wide. To do this, lay the plank face up on top of the last full row installed. Trace the wall contour on the last plank using a scrap piece of plank and a pencil.
17. Install cut planks and pull into place with a pry bar. Install spacing wedges between planks and wall.
18. Remove the straight edge and install the last row using the pry bar. Allow the floor to dry for a minimum of 12 hours before removing all spacing wedges and allowing foot traffic.
19. Install trim and moldings on the following day. A **SILICON** cocking must be applied in the gap around the perimeter between the wall and the floor before the molding is installed.

COMPLETING THE JOB **(ALL INSTALLATION TYPES)**

- Clean the floor with hardwood floor cleaner.
- Install transition pieces. Never nail or glue any molding directly to your floor (adhere to the wall).
- Inspect finished floor for gaps, or nicks – fill with appropriate color wood putty.
- Unsecured material should be stored in a cool dry place in case future repairs are needed.
- Use plywood or hardboard when moving heavy appliances or furniture across the floor.

Floor Protection During Construction: Always protect the surface of the installed floor during construction by laying a rosin paper or another paper that will allow for the floor to breathe, taping it to the baseboards. Never use plastic or polyethylene sheeting to cover the floor since they might trap moisture and will damage your flooring.

USEFUL MOLDING AND TRANSITION PIECES

T-Moldings: Used to create a transition between floor coverings of similar heights.

Stair Nosing: Used in conjunction with flooring installed on steps to provide a finished edge. Secure by gluing and nailing down into place. Pre-drill holes to avoid splitting.

Reducer Strips: Used to transition floor coverings of differing heights – wood floor to vinyl, vinyl to composition tile, or low – pile carpet. Can also be used to boarder a fire place.

Thresholds: Used to transition floor coverings – wood to carpet, can be used as a trim molding around fireplaces or sliding glass doors.

Show Base Moldings: used to cover the expansion gap between floor and vertical surfaces. Can be used as a substitute for quarter round moldings when space is limited.

Quarter Round Moldings: Used to cover the expansion gap between the wall base and your flooring. You can also use them to make smooth transitions between the cabinetry and floor.

Wall Base Moldings: Can be stained and finished to the color of the flooring to be used as an alternative to painted baseboards.

IMPORTANT FLOOR CARE AND MAINTENANCE

- It is important to keep your hardwood floors free from dirt, water, food, grease, and other spills which can damage the floor or finish.
- You should periodically clean floors using a leading brand of cleaner made for pre-finished engineered hardwood floors (see cleaner label for directions). Do not use ammonia or oil-based wax, polish, abrasive cleaners, or furniture cleaners.
- Make sure to install floor protectors under furniture, chairs or other items that may sit directly on your hardwood floor to help prevent scratches, scarring, and dents.
- Regularly sweep, dust mop and/or vacuum to keep dirt and grime from dulling the shine and scratching the finish. Wipe up all spills promptly with a soft, dry cloth.
- Avoid walking on floors with sharp, stiletto high heel shoes or shoes with soles in need of repair.
- Keep pets' nails trimmed, and paws clean and free of dirt, gravel, grease, oil, and stains.
- Exposure to the sun and its UV rays accelerates the oxidation and aging of wood and fabrics. This causes the stain and/or wood to fade and/or to change color. It is recommended that you rearrange rugs and furniture periodically so the floor ages equally. Flooring is not warranted for damage from the sun and its UV rays.
- Use rugs in high traffic areas and pivot points (i.e. stair landings, room entries, etc.), especially if you have a large family or indoor pets.