



FORESTA™ HARDWOOD FLOOR INSTALLATION GUIDE.

IMPORTANT!!!:

- **Carefully read all instructions before opening any packaging or commencing installation.**
- **DO NOT** remove plastic straps or hardwood flooring from its packaging until time of installation. If your Foresta™ hardwood is packed in a cellophane™ type clear wrapping, remove the cellophane™ to allow wood to properly acclimatize.
- Protect wood from direct light and/or sunlight during storage.
- Remove clear protective poly wrapping once on site, this allows the wood to acclimatize to your home's humidity conditions.
- Allow wood to acclimatize on site a minimum of 2 weeks prior to installation, see details below in **OWNER INSTALLER RESPONSIBILITY** section.

OWNER INSTALLER RESPONSIBILITY:

- It is the sole responsibility of the purchaser/owner/installer/contractor to, prior to installation, verify and confirm that the wood has acclimatized to the local environment and has reached a "moisture content %" (MC) which is suitable and will ascertain that the wood will be stable after installation and not subject to potential shrinkage or expansion. To test the MC of the wood, the use of a "wood humidity meter" is required, they are available from most equipment rental, hardware stores and hardwood dealers. Note that in some regions/climates (dry/arid or humid) the period of acclimatization may take longer than 2 weeks, if in doubt, additional time is recommended. When installing wider-width boards: **3 1/4" (83mm) or wider**, additional acclimatization time is recommended. MC testing should be made on several boards from several boxes so to give a representative result. Your local FORESTA™ supplier can advise you of the correct MC range suitable for your home/region.
- Hardwood flooring is a natural product, therefore, each piece of wood will have its own unique grain texture, colour and irregularities. FORESTA™ hardwood flooring is manufactured in accordance with recognized industry standards, which permit a natural or manufacturing defect tolerance not exceeding 5%.
- The purchaser/owner/installer assumes full responsibility for the inspection of this product, inspection should be done prior to installation. Inspection should include milling, colour, factory finish and grade. **If the product is not acceptable, do not install it. Contact your supplier immediately for assistance.** Boards you do not feel are acceptable should be put aside for cuts, used in non-visible areas (closets) or discarded and not used at all. All boards installed will be deemed to have been inspected and quality accepted. If the product is not acceptable, do not install it.
- Before commencing installation, the purchaser/owner/installer of this product must certify that the area/environment planned for installation is suitable for hardwood flooring and that all sub-flooring meets or exceeds all industry standards and recommendations. The manufacturer accepts no responsibility for product failure extending from or related to failure to meet job area/environment and sub-flooring requirements.
- The purchaser/owner/installer must allow for defects and accordingly plan an additional 5% of material for cutting, waste and grading allowance. When in doubt a questionable piece of wood should not be installed. Pieces of wood with noticeable defects are traditionally used for installation in non-visible areas such as closets or areas covered by furniture.
- The use of putty, stain and filler to hide or correct defects is considered as normal and accepted procedure.
- If your installation is for a newly built home or construction, ensure that all windows and doors are installed and that wall and floor boards are completely dry. It is recommended that hardwood flooring be the last stage in a construction project.
- If you are planning to install hardwood flooring over a concrete floor, follow the steps outlined in the section: **INSTALLATION OVER CONCRETE SUB-FLOOR.**

TOOL & ACCESSORY REQUIREMENTS:

NOTE: For a successful installation, it is very important that you use the correct fasteners such as: nails, staples, cleats and/or adapters. The use of incorrect fasteners, equipment and/or air pressure can cause irreparable damage the product and will render all warranties null and void. The manufacturer of this hardwood flooring product is not responsible for any damages resulting from incorrect tools and/or misuse. Before starting to install your hardwood floors, ensure you have all the necessary and correct tools, equipment and accessories, including:

- Shop or household vacuum
- Broom & dust pan
- Chalk-line & chalk
- Hand saw
- Table saw, miter saw, jig saw and/or circular saw
- Drill & 1/16" (1.5mm) bit
- Hammer
- Nail set/punch

- Safety glasses and gloves, as well as other protective wear and/or safety equipment necessary for safe handling and installation.
- Approved hardwood cleaner
- Matching wood putty
- Moisture meter for wood and/or concrete as required
- 7D or 8D nails
- 3/4" (18mm) "Blind" Brad nailer fastening machine or
- Pneumatic hardwood nailing system with 15 gauge nails, minimum 1 1/2" (40mm)

GENERAL PRE-INSTALLATION RECOMMENDATIONS:

- All "wet work" including: concrete, dry wall, plaster and masonry should be completed, dry and fully cured. It is also recommended that all framing, painting and wallpaper hanging be complete and dry.
- Hardwood flooring may be successfully installed in powder-room type bathrooms, however, is not recommended in full bathrooms with bath tubs and/or showers due to risk of water contact and high humidity.
- When painting baseboards after hardwood floor installation, tape & paper floor to avoid getting paint on it. **REMOVE** tape as soon as paint is dry. When re-painting walls and/or ceilings in the future, the use of full area drop cloths is highly recommended.
- Hardwood installation is generally recommended for areas at or above the exterior grade. For basement and sub grade installation, see section: **INSTALLATION OVER CONCRETE SUB-FLOOR.**
- If installing over a crawl space, the crawl space must be well ventilated to control humidity.
- Heating and air conditioning systems should be installed and in operation at a minimum of 4 days prior to installation. Optimal room temperature is between 65°F and 75°F (18°C to 24°C).
- Optimal relative humidity should be maintained between 35% and 55% for a minimum of 12 days prior to, during and on a year round basis after installation.
- Sub-flooring must be sound and dry, test moisture using a digital moisture meter, moisture should not exceed 14%. Sub-flooring must be flat and free of nail heads or other surface irregularities.

BENEFITS OF ISO-FLEX™ HIGH-PERFORMANCE ACOUSTIC MEMBRANE & MOISTURE BARRIER:

- For a "quieter floor": To minimize the transfer of sound (related to the floor such as: walking in shoes, children playing on the floor, etc) from room to room and from floor to floor, the use of **ISO-FLEX™** "integrated acoustic and moisture membrane" is highly recommended. Ideal for condos and multi-floor building installations, no other acoustic membrane can match the performance of **ISO-FLEX™**.
- For a "drier floor": **ISO-FLEX™** will help to protect your hardwood investment from the damaging effects of sub-floor humidity, thanks to its superior resistance to moisture. This is important for basement, sub-grade and on-slab installations, where **ISO-FLEX™** can provide superior vapour barrier protection from moisture/humidity originating from the slab.
- For a "warmer floor": **ISO-FLEX™** will also help keep your floor warmer thanks to its insulating properties.

STORAGE & HANDLING OF YOUR HARDWOOD:

- Prior to installation, store materials in the same environment (temperature & humidity) as the area for installation. If this is not possible, store your hardwood indoors in a warm dry place, away from sources of humidity or changing temperatures. **Store hardwood flooring laying flat.**
- When storing your wood so to optimize acclimatization to your local conditions, each carton should have an air space under and between it to allow adequate air circulation. To facilitate this, stack cartons in a checkerboard manner, alternating each layer of cartons by 90°, leaving a few inches between each carton. Bottom row not be directly on floor, elevate it slightly.
- Do not store hardwood outdoors, in damp indoor areas or directly on below-grade cement floors. When storing on a concrete floor, allow a minimum of 4" or 10cm of space for ventilation between the concrete & wood, concrete must be a minimum of 60 days old.
- Handle hardwood with care to avoid accidental damage and/or personal injury.

GENERAL PRE-INSTALLATION INFORMATION:

- **Squeaks:** It is important to inspect your sub-flooring for squeaking and to repair any squeaks you locate. Note that mechanically fastened hardwood floors may develop minor squeaks due to structural movement. Squeaks may appear on a seasonal basis due to environmental changes. Close adherence to our instructions can minimize the risk of squeaks, however, we offer no guarantee or warranty that your hardwood floor will not squeak.
- **Manual fastening machines:** It is important to select the correct adapter plate, otherwise you may crush & damage the edge of the wood, causing splintering and cracking. Use an adapter set for 3/4" (18mm) thickness (5/8" or 15mm for Bamboo flooring).
- **General fastening machines:** It is important to select the correct plate, otherwise you may badly crush the edge of the wood, causing splintering and cracking. Use a block to make striking the edge plate easier and reduce risk of damage. **Refer to figure #1.**
- **Pneumatic fastening machines:** Safety should always be your priority when using pneumatic fastening machines, ensure you and all persons authorized to use this equipment are familiar with it and all safety precautions.

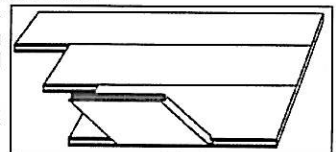


Figure #1

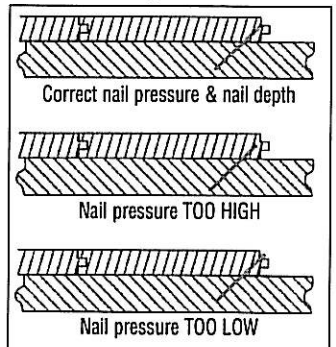


Figure #2

- Correct air pressure settings are key to successful installation. **Too low** a pressure will insufficiently set nails which will result in poorly fastened boards, damage to adjacent boards and difficulty in making tight joints. **Too high** a pressure will over set nails, resulting in damaged or split tongues, loose and squeaky boards.
- Pneumatic nailing systems must have an adjustable in-line regulator to permit you to adjust pressure for optimal nail setting depth. Set pressure initially at 75 psi (5 bars), adjusting it as required to achieve correct nail set depth. **Refer to figure #2.**

SUB-FLOOR PREPARATION:

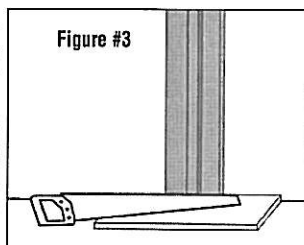
- **Sweep it clean:** It is critically important to thoroughly sweep & clean the sub-floor immediately prior to installation to ensure there is no debris or grit to interfere with the close fitting of the hardwood.
- **Must be smooth:** A successful installation requires a smooth surface, nail & screw heads must be countersunk. Sand off any other irregularities, as well as slight changes in grade between rooms.
- **Moisture barrier:** The installation of an overlapping layer of either a: minimum 6 mil polyethylene plastic sheet or 15lb builder's felt (tar paper) acts as a moisture barrier, reducing board warping and cupping due to changes in moisture/humidity levels. This is especially important for floors over basements and crawl spaces. Install the tar paper with a 50% joint overlap so paper is double thickness. Added benefits of the tar paper installation are improved sound-proofing, cushioning and noise from grit debris.
- **High-performance moisture barrier:** For superior moisture barrier protection, we recommend the use of ISO-FLEX™, in place of 6 mil polyethylene or tar paper. Follow ISO-FLEX™ installation recommendations.

SUB-FLOOR REQUIREMENTS:

- Before you commence installation, ensure your sub-floor meets or exceeds one of the following sub-floor types. If it does not, install an additional layer of plywood over the existing sub-floor as detailed in this section.
- **Recommended sub-floor:**
 - 3/4" (19mm) APA or CDX grade plywood
- **Acceptable sub-floor:**
 - 3/4" (19mm) OSB PS2 rated (install sealed side down)
 - 5/8" (16mm) CDX grade plywood
 - T&G wood sub-flooring
 - Pre-existing hardwood flooring
- DO NOT install hardwood flooring over the following materials: particle-board, wafer-board, pressed wood or fiber-board. DO NOT install hardwood flooring over radiant heated sub-floors.
- **Installation of new sub-floors:** If you are installing new sub-flooring, 3/4" APA or CDX plywood is recommended. Install the sub-flooring perpendicular to floor joists in staggered rows so that joints between adjacent sheets do not line up. 3/4" plywood is acceptable for 16" & 19.2" center joists. For floors with joists exceeding 19.2" centers, a minimum sub-floor thickness of 1 1/8" is recommended. Nail or screw the sub-flooring every 6" (15cm) along joists avoid squeaking and warping of the sub-floor.
- **Verify moisture content (MC) of sub-floor:** Before installing your hardwood, verify the MC of the sub-floor is below 14%, using an electronic wood moisture meter, available from most hardware stores. Test MC level in multiple areas per room. If MC level is higher, ensure heating and/or air conditioning systems are operational and wait a few days for sub-floor to achieve a MC of below 14%. Note: The MC difference between the sub-floor & the hardwood flooring should not exceed 4%.
- **Installation over existing hardwood floors:** If you are installing over a pre-existing hardwood floor, it is recommended to install the new floor perpendicular to the old hardwood floor. If you chose to install the new hardwood floor in the same direction, it is recommended you install a 1/4" (6mm) layer of plywood over top of the old floor to stabilize it.
- **Installation over existing vinyl or linoleum tiles:** You may install hardwood directly over existing vinyl or linoleum tiles as long as they are smooth and not more than 1 layer thick, and that the sub-floor beneath them meets the sub-floor requirements previously mentioned.
- **Underlayment panels:** If you are using underlayment panels, they should be spaced 1/8" (3mm) apart. If they are not, use a circular saw set to the same depth as the panels and cut a spacing gap along all underlayment seams.

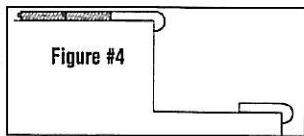
WALL & DOORWAY PREPARATION:

- Remove all trim, baseboards and quarter-rounds, identify them on their reverse side for reinstallation. Remove doorway thresholds, these may or may not require reinstallation.
- When installing hardwood around door casings, it is easier to notch the bottom of the door casing with a saw or chisel so that the hardwood can slide beneath it. To make a straight cut easily, lay a handsaw flat on a piece of scrap flooring as a guide. **Refer to figure #3.**



STAIRS:

- A matching "bull-nose" must be used at the top edge of stairs, as well as at the edge of all steps. Nail bull-nose securely into place, with hardwood fitting up against it afterwards. Verify the thickness of your floor and the bull-nose you are using for fit. Should they vary slightly in height, modify or slightly shim the bull-nose to fit. **Refer to figure #4.**



INSTALLATION OVER CONCRETE SUB-FLOOR:

Hardwood flooring can be successfully installed over concrete sub-floors with correct preparation and verification as follows:

- We recommend the use of ISO-FLEX™ for all installations over a concrete floor, especially in basements or other areas with risk of humidity originating from the slab. Follow ISO-FLEX™ installation recommendations. ISO-FLEX™ will minimize the risks inherent with sub-grade installations, providing superior results than are available with traditional moisture barrier products.
- **Moisture level:** It is important that the slab you desire to cover is dry on an annual basis. Note that a floor which tests "dry" now, may be "wet" at other times of the year. It is NOT recommended to install hardwood flooring over basement floors with a history of flooding, weeping or exceptionally high moisture content. It is recommended that basements have an operational sump pump.
- **Moisture Content (MC):** The moisture content of the concrete sub-floor should not exceed 5%. To test moisture content, use one of the following test methods:
 - Use a TRAMEX "Electronic Concrete Moisture Encounter Meter".
 - Use a 3% Phenolphthalein in an anhydrous alcohol solution as follows: In several areas, chip the concrete to a minimum depth of 3/8" (10mm), apply 3 - 5 drops of the solution to the chipped areas. If the solution DOES NOT change colour, your floor is adequately dry at the present time. If the solution does change colour, further testing is required. It is recommended you consult with a building inspection services company.
- **Installation of a moisture retarding system:** Regardless if moisture is present, ALL INSTALLATIONS OVER CONCRETE SLABS should have an ISO-FLEX™ moisture barrier, or at a minimum a 6 mil polyethylene moisture barrier placed under the sub-floor nailing surface. Over lap joints a minimum of 12" (30cm). Multiple layers of tar paper, with joints lapped a minimum of 6" (15cm) may also be used as a moisture barrier.
- **New construction:** For new construction, a minimum 6 mil polyethylene sheet should be installed between the newly poured concrete and the ground/crushed stone beneath it.
- For further information regarding concerns or questions about moisture content, moisture problems or any other construction or installation issues, consult with a building inspection services company.

Installation of the sub-floor nailing surface: There are 2 types of sub-floor nailing surfaces: "fastened" and "floating", either may be used with equal success. Their installation is as follows:

Fastened sub-floor nailing surface:

1. Thoroughly sweep the floor clean and inspect it for surface irregularities. Surface irregularities should be ground off smooth with an abrasive grinding wheel.
2. Install one of the following: ISO-FLEX™, 6 mil polyethylene or multi-layer tar paper moisture barrier as noted in the preceding section.
3. Install a minimum 3/4" (19mm) plywood directly over the concrete, leaving a 1/2" (12mm) around all walls, posts and vertical surfaces. A 1/8" (3mm) gap should be left between all plywood sheets.
4. To attach plywood to the concrete, use either a pneumatic or ballistic (Ramset™ or similar) fastening system. Fasteners (nails) should be spaced no more than 12" (30cm) apart. DO NOT fasten closer than 2" (5cm) from edges of plywood. Use 1 1/2" (40 mm) long fasteners. **DO NOT ATTEMPT TO HAND-NAIL THE PLYWOOD WITH CONCRETE TYPE NAILS AS THEY WILL NOT HOLD PROPERLY.**
5. Install a further moisture barrier over the top of sub-floor nailing surface as in step #2 and commence installation of the hardwood flooring. If you have installed ISO-FLEX™ under the sub-floor, a further moisture barrier is not necessary.

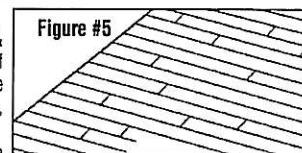
Floating sub-floor nailing surface:

1. Thoroughly sweep the floor clean and inspect it for surface irregularities. Surface irregularities should be ground off smooth with an abrasive grinding wheel.
2. Install a moisture barrier as noted in the preceding section.
3. Install a minimum 3/8" (10mm) plywood directly over the concrete, leaving a 1/2" (12mm) around all walls, posts and vertical surfaces. A 1/8" (3mm) gap should be left between all plywood sheets. Install a second minimum 3/8" (10mm) plywood directly over the first layer in the opposite direction (at 90°), with joints staggered by 24" so that no seams overlap.
4. Nail, staple or screw the 2 layers of plywood together using fasteners which **will not** penetrate the bottom of the lower layer of plywood. Fasteners should be spaced no more than 8" (20 cm) apart. In addition to fastening, the use of an adhesive between the layers is recommended, consult with your local hardware store for the correct adhesive.
5. Install a further moisture barrier as in step #2 and commence installation of the hardwood flooring. If you have installed ISO-FLEX™ under the sub-floor, a further moisture barrier is not necessary.

INSTALLING YOUR HARDWOOD FLOORING:

GENERAL TIPS:

1. To ensure even distribution of colour tones & grain texture, draw hardwood strips from a minimum of 3 boxes at a time. Pieces of wood with flaws, extreme colours or grain texture should put aside for end-cuts, use in less visible areas or in closets.
2. For large rooms, basements or in climates where high humidity may be encountered, the use of spacers is recommended every 8 - 16 rows. This precaution may be necessary to reduce the risk of "floor expansion". Use thin washers 1/32" (0.8mm), inserted between the strips to the depth of the tongue the length of the entire row. After installation, remove the washers.
3. Ensure a well varied installation of the various lengths to achieve a pleasant random length mix. Pay especial attention not to have any joints line up, for optimal appearance, joints should be a minimum of 4" (10cm) apart. **Refer to figure #5.**
4. In all steps, it is recommended that nails are set no closer than 2" (5 cm) from ends of boards to minimise the risk of splitting.
5. If you are using a pneumatic nailing system or stapling system, use 15 gauge nails of a minimum 1 1/2" (40mm) length.



STEP #1. SETTING UP FIRST ROW GUIDE LINE:

1. If you feel a moisture barrier is required, such as ISO-FLEX™, tar paper or 6 mil polyethylene, install it now, as mentioned previously.
2. In most cases, hardwood installation parallel to the longest wall is most attractive. It is, however, important to remember that hardwood flooring should be installed perpendicular to the floor joists, unless you have added an extra sub-floor layer to stiffen the sub-floor to reduce sagging.

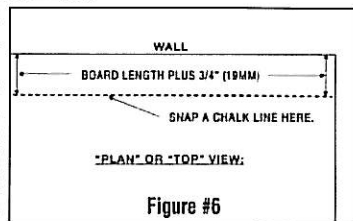


Figure #6

3. Set up your starting line for your first row as follows: measure the width of the hardwood flooring you have purchased, adding 1/2" to 3/4" (12 - 19mm) to this width. Using this measurement, make a clear mark on the floor at each end of the wall, staying a few inches away from the corner (where the wall is straight and true). Using a chalk-line, carefully snap a line between these two points. Inspect the chalk-line to verify it does not touch the wall, nor is too far away in places so that when trim (baseboards & quarter-round) is installed, the edge of the first row is just covered. If necessary, erase line and snap a new line as required. Refer to figure #6.

STEP #2. INSTALLING FIRST ROWS, (WALL TO WALL):

1. It is important to use the longest and straightest boards for the first row and medium to long lengths for the second row, this will ensure a straight and true installation. Install these first 2 rows as shown in figure #7.
2. When installing the first row, note the GROOVED side of the board must be facing the wall.
3. Starting 2" (5cm) from the end of the board and 1/2" (12mm) from the GROOVED edge of the board, pre-drill 1/16" holes every 6" (15cm) at 45 degrees, angling downwards towards the wall. Refer to figure #7.

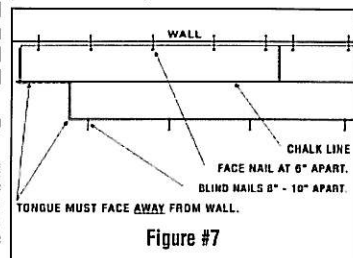


Figure #7

4. Align the tongue of the first row along the chalk-line. Using 7D or 8D nails, face-nail down the first row through the pre-drilled holes. Counter-sink nails using a nail punch. Next, blind-nail through the nailing pocket of the tongue on the first row, using 7D or 8D nails. Nails should be spaced every 8" (20cm). Use a nail punch to drive nails the last 1/4" to avoid damaging or bruising the edges of the boards. Nails must be countersunk to allow a close fit of the next board. Refer to figure #7.
5. Blind nail the next few rows as in step #4 until you are far enough away from the wall to utilise stapling or pneumatic nailing system.
6. Remember to stagger lengths so that ends of boards are no closer than 6" (15cm) apart. Do not nail closer than 2" (5cm) from the ends of boards to minimise the risk of board splitting.
Note: The first rows may be nailed in to place using a pneumatic finish nailing system where access and clearance permits. Use 15 gauge finishing nails of a minimum length of 1 1/2" (40mm).

STEP #3. INSTALLING FIRST ROWS, (CENTRE TO WALL):

1. Locate the centre line of the room, using a chalk-line, snap and mark the centre line.
2. Temporarily install a secure row of "guide-row" hardwood (or other material) along the entire length of the centre line.
3. Install a minimum of 4 lengths of hardwood flooring along the temporary row.
4. Remove the temporary guide-row and install a "slip tongue" into the groove. Drill and nail the slip tongue into place to secure the centre edge of the first row. Continue installation from both sides of the centre of the room.

STEP #4. "LAYING OUT" OR "RACKING" THE FLOOR:

1. Starting 6" (15cm) from the first installed rows, layout (DO NOT NAIL) approximately 80% of the area to be installed. It is important to select and mix boards at this stage, so that boards in their correct position in regards to their end joints being no closer than 6" (15cm) from each other when pulled from the layout area for installation. Set aside boards with objectionable natural or mechanical flaws, these will be used to make "starts and ends" in step #3 of this section.
2. When cutting the last board of each row, leave a 1/2" (12mm) gap between the board and the wall for future expansion. The leftover piece should be used as the first piece of the next row.
3. It is best to first use boards with objectionable flaws for "starts & ends", as flawed sections may be cut out, thus optimizing the quality of your hardwood floor installation and minimising waste.

STEP #5. INSTALLING YOUR HARDWOOD FLOOR:

1. Before you start to use any mechanical or pneumatic nailing or stapling system, it must be correctly calibrated as to impact settings and air pressure. Install a "sacrificial" board, carefully inspecting it for correct nail depth, excessive tongue cracking and surface damage, adjust and re-test system until it is operating correctly. If you are not familiar with this equipment, this is your opportunity to familiarise yourself with its correct use. Make all your adjustments and practice with this sacrificial board. When all settings are correct and you are familiar with the system's use, remove, destroy and discard the sacrificial board to avoid its accidental future installation.
2. Install several rows as you move across the room, secure each piece in place with a minimum of 2 nails, spaced approximately 8" (20cm) apart. When inserting each board into place for nailing, ensure

it is fully inserted into the adjacent boards at the end and full length of the side to eliminate any gaps. NEVER directly strike a board with any implement to adjust a board. If necessary, use a "scrap" board with a hammer to drive tight fitting boards into place, as shown in figure #1.

3. It will not be possible to use a mechanical or pneumatic nailing system on the last 1 or 2 full rows. Install these last rows using the same method as outlined in STEP #2 of this section on the tongue side of the last full boards.
4. Rip-cut the final row to fit, leaving a 1/2" to 3/4" (12 - 19mm) gap along the finishing wall for future expansion. It should be drilled and face-nailed 1/2" (12mm) from the edge as outlined in STEP #2 of this section.
5. If the final row (when cut) is less than 1" (25mm) in width, it is recommended that it be glued to the previous board BEFORE IT IS INSTALLED. Install these last glued rows as a single row, face-nailing them into place as if they were a single board.

FINISHING DETAILS:

After you have completed the floor installation, you may require to complete some of the following finishing details:

- **General cleaning:** It is recommended that you sweep & vacuum the area immediately after installation to remove potential damaging grit and debris. A further cleaning with an approved hardwood floor cleaner is also recommended.
- **Baseboards and quarter rounds:** Replace or install new matching baseboards and quarter rounds in all areas. If baseboards and quarter rounds require finishing, it is best to pre-finish them in a separate area to avoid spilling on the hardwood floor. Baseboards are to be nailed into the wall and quarter rounds into the baseboards. DO NOT nail either of these into the hardwood flooring.
- **Transition pieces:** If you have removed any transition pieces and not covered their place with hardwood, reinstall them immediately, these include: reducer strips, T mouldings and thresholds. You may desire to replace the old ones with matching new ones available from your hardwood flooring supplier. General information regarding the use of transition pieces is as follows:
 - **Baseboards:** vary from 4" - 8" high and from 1/2" to 3/4" thick, used on walls along the edge of floors, pre-drill and nail directly to wall. Usually matches floor colour.
 - **Quarter round:** use either 1/2" x 3/4" or 3/4" x 3/4", used at the base of baseboards, pre-drill and nail directly to baseboard. Usually matches baseboard colour.
 - **Combination base & shoe:** this "combination" moulding is used to cover the expansion joint between the floor and the wall, pre-drill and nail directly to the wall.
 - **Threshold:** this is a wedge shaped piece of wood used between 2 different floors of different heights. Use in front of doorways, fireplaces, room dividers, different types of flooring, ceramic or stone tile or carpeting, to gently reduce and safely accommodate the height transition. Cut and finish to necessary width, pre-drill and nail directly to sub-floor. IMPORTANT: always leave a minimum of 1/2" (12mm) of room for expansion beneath the undercut.
 - **Reducer strip:** much like a threshold, this elliptical shaped moulding is used when height differences are minor. Fasten with adhesive, 2 sided tape or pre-drill and nail directly to sub-floor.
 - **"T" moulding:** "T" mouldings are used as a transition piece or to provide additional expansion spaces between different flooring areas. Leave expansion space on both sides, pre-drill and nail directly to sub-floor.
 - **Furniture & appliances:** If you are moving and placing furniture and appliances in areas with hardwood floors, cover all feet and floor contact points with heavy self-adhesive felt pads to protect the floor. When moving an object, furniture or appliance, NO NOT slide them, using care, safely lift and move them into place. Felt pads on chair legs should be replaced periodically, as they wear and accumulate grit with use and can damage the floor.

CONGRATULATIONS ON YOUR SUCCESSFUL FORESTA™ HARDWOOD FLOORING PROJECT! We wish you many years of service and enjoyment with our product and offer our most sincere thanks for choosing FORESTA™ products.

GENERAL MAINTENANCE & CARE FOR YOUR FORESTA™ HARDWOOD FLOORING:

Hardwood floors are easy to care for and require minimal effort to maintain: We recommend you follow the following periodic maintenance procedures for optimal results:

- Regular vacuuming and periodic cleaning of your hardwood floor will ensure its beauty and finish lasts. More frequent attention is recommended in high traffic areas and near exterior and garage entrances. There are many excellent hardwood cleaning products available from most hardware and hardwood retailers, use as per manufacturer's recommendations.
- Install small interior area rugs at all exterior and garage entrances, as well as door mats on the outside to remove loose dirt and debris. Clean these on a regular basis. DO NOT leave on hardwood floor permanently. For non-slip area rugs, consult with a reputable floor covering vendor.
- Never use water or wet mops to clean hardwood floors, as well as cleaning or polishing products which require the use of water. The use of these products could void your warranty. Water from shoes, coats, pets, etc from rainy weather should be wiped up immediately with a dry soft cloth or paper towel.
- Toilet training accidents from children and pets alike must be immediately cleaned up without delay due to the risk of discoloration properties of urine. Do not toilet train pets, nor keep their litter boxes near hardwood floors.
- Clean spills and messes right away to prevent them from running between the cracks and staining the floor. Small spills should be cleaned up with a lightly dampened cloth (which will not leave water drops on the surface) with a small amount of dishwashing soap.
- If you have a pet, especially large dogs, its nails may scratch the floor. Keep pet nails trimmed on a regular basis, filing rough areas smooth.

- Do not roll furniture or appliances with castors, as most castors will damage the floor's finish. Carefully and safely lift and move the furniture or appliance into place. Barrel type castors are recommended for use on furniture used on hardwood floors to reduce risk of damage.
- Maintain as constant a temperature and humidity level in your home on a yearly basis as is possible. Humidity should be kept between 35% and 55% throughout the year. To control humidity, the use of a dehumidifier and/or air conditioning during the summer may be necessary, as may be the use of a room or central humidifier in the winter months. Note that electric baseboard and hot water radiator type heating systems promote especially low humidity levels. Areas prone to humidity should have an operating dehumidifier in operation on a regular basis.
- High heel, spike, stiletto and similar types of shoes can cause denting to hardwood floors. These types of shoes generate static loads of approximately 2000 psi and dynamic loads as much as 10 times higher, even by small framed women! Damaged shoes of these types are especially damaging to hardwood floors. It is recommended that shoes worn in homes be in good repair and of a soft sole type. Damages resulting from foot wear are specifically excluded from the manufacturer's warranty.
- All hardwood which is exposed to light (as in natural light) or sunlight will naturally darken with age, this darkening will bring additional warmth to the hardwood's natural colour. It is recommended to periodically move area rugs and other objects slightly in their position to avoid the development of a distinct line due to colour change. **Note that darkening or change of colour is not considered a defect under this product's warranty. Furthermore, at the time of installation, should any boards have lighter toned areas, which were under the plastic straps and/or labeling, these areas will darken and develop the same colour tone as the remainder of the floor within a few weeks of exposure to natural light.**
- Minor damage and wear can be repaired using a "hardwood touch-up & repair kit" available from your local hardware or hardwood flooring supplier. Follow instructions provided with the kit with care.
- Should you require replacing any damaged boards in the future, contact a local professional installer who can provide this service to you.

INSTALLERS & CONTRACTOR INFORMATION:

- Please forward this entire information and installation document to the home owner or tenant for their future reference.
- We recommend that you specifically review the GENERAL MAINTENANCE AND USE OF YOUR FORESTA™ HARDWOOD FLOORING section of this document with the owner or tenant.

CAUTION: WOOD DUST

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.

FORESTA™ HARDWOOD FLOORING LIMITED WARRANTY:

This warranty is subject to the procedures, recommendations, limitations, disclaimers and exclusions mentioned herein and in the general information, installation and warranty sections of this document.

Foresta™ hardwood flooring products carry a limited residential warranty when installed in a residential situation against manufacturer and workmanship defects when used under normal conditions and installed in accordance with Manufacturer's installation instructions to the original purchaser owner of the home, as long as they continually own the home for the period of the warranty. Consult your original packaging for the warranty time specific to the product you have purchased. Note that you must retain an original label of the product purchased which denotes your warranty duration, as well as the UPC code and your original receipt of purchase. This warranty is not transferable. Manufacturer's warranty and liability does not extend beyond the hardwood flooring strips and is limited to a maximum value of the original purchase price. Warranty is limited to repair or replacement of the hardwood strips at the sole option of the manufacturer. The warranty does not include labour and installation costs. Claim compensation (if approved and/or authorised by Foresta™) is limited to the specific area which Foresta™ deems to be valid under the claim.

This warranty does not cover and specifically excludes such damages, indentations, scratches, dents and stains caused by normal wear and tear, erosion, pebbles, stones, sand, all other abrasives, wet mopping, inadequate protection, insects, rot, mould, mildew, bacteria, lack of maintenance, weather conditions, fire, water, high humidity, excessive dryness, natural disasters, excessive heat, heating and air-conditioning systems, accident, improper installation or handling, cleaning, negligence or other causes not attributed to manufacturing or workmanship defects, failure to adhere to and follow all the manufacturer's instructions for installation and maintenance and incorrect or insufficient maintenance. Any modification to the product other than as outlined in the manufacturer's installation instructions will render the warranty null and void.

Furthermore, this warranty excludes high traffic areas including but not limited to: general traffic areas, entrance areas, hall ways, stairs, landings, play rooms, areas under: chairs, tables, desks and other area subject to excessive wear.

The warranty excludes claims due to the development of naturally occurring flaws, stresses, warpage, cracks, split ends or other flaws within the wood which manifest over time, whether or not caused by age, low or high humidity, seasonal humidity changes or other natural causes. This warranty does not cover natural contraction (loose boards and cracks between boards) or expansion (cupping of boards and warping), whether or not caused by excessively low or excessively high humidity. Nor does this warranty cover secondary damages caused by floor expansion or installation environment where the boards are to be installed.

The warranty excludes claims due to natural darkening of the wood from exposure to light, or to areas which have not darkened due to less exposure to light than surrounding areas.

This warranty explicitly excludes products sold "as is", as seconds, utility, rustic, second, antique, taverna, café or other grades which utilises other than Select and Better grades of lumber.

The original purchaser is responsible for correct installation, maintenance and cleaning of the hardwood flooring in accordance with the included instructions. It is important to note that natural and stained hardwoods can have colour, grain variations and natural flaws & manufacturing flaws up to 5% and that the manufacturer cannot guarantee exact colour matches from one piece of wood to the next. Colour, grain variations and natural flaws & manufacturing flaws up to 5% are not considered as manufacturer's defects under this warranty.

Foresta™ warrants to the original user that its products, when in their original manufactured condition, will be free from defects, de-lamination, splitting and dimensional inconsistency during the warranty period when installed and used under normal residential use in accordance with the terms, installation instructions, limitations and conditions herein.

Foresta™ warrants to the original user that the finish on its products will not wear through nor separate from the hardwood flooring during the warranty period when installed and used under normal residential use in accordance with the terms, installation instructions, limitations and conditions herein.

Should your Foresta™ hardwood floor fail to live up to the provisions of this warranty, Foresta™, at its sole option, to the original purchaser/home owner, will repair, replace or refinish the area it deems to qualify under warranty claim at no cost to the original purchaser/home owner with the same or similar product. If the repair or replacement by a same or similar product cannot provide a reasonable and satisfactory claim resolution, Foresta™, at its sole option may elect to provide to the original purchaser/home owner a refund of the original price of the materials only for the area Foresta™ deems to qualify under the warranty claim.

This warranty is the entire and sole statement of warranty for the product and replaces any and all previous warranties, written, spoken, implied or otherwise. No implied warranties exist beyond the terms and conditions of this warranty. Foresta™ assumes no legal liability for any and all actual incidental and/or consequential damages, however, some states within the USA do not permit the exclusion or limitation of incidental and/or consequential damages, as such, this exclusion may not apply to you. This like all warranties gives you specific legal rights, in addition, you may also have other rights that vary from state to state or from province to province.

To file a warranty claim, first contact the original supplier where the hardwood was purchased. If the supplier cannot resolve the problem or claim to your satisfaction, submit your warranty claim in writing within the warranty period as noted below.

Note that Foresta™ reserves the right to visit or have its agent visit the premise where the product claim originates to inspect the product in dispute and to remove samples for verification and technical analysis. Failure to provide reasonable access to the installation area or to provide requested information and/or documentation may result in denial of the claim.

All warranty claims must be made in writing to Strategis International Inc. and must include a complete copy of the original purchase receipt, installation documentation as available and other information as may be requested by Foresta™ plus this warranty. Claims are to be forwarded to:

Strategis International Inc.
FORESTA™ Products Division
420 Trans-Canada, Longueuil, Quebec, Canada J4G 1N8
FORESTA™ is a trade-mark of Strategis International Inc.
For customer service inquiries, contact us at: info@strategisinc.biz