T&G Engineered floors

IMPORTANT: PROCEED WITH A VISUAL INSPECTION OF THE STRIPS BEFORE INSTALLATION. ONCE INSTALLED, THE STRIPS ARE CONSIDERED ACCEPTED BY THE INSTALLER AND THE OWNER.

PLEASE READ THE ENTIRE INSTALLATION INSTRUCTIONS BEFORE PROCEEDING WITH THE INSTALLATION

OWNER / INSTALLER RESPONSIBILITY

Hardwood flooring is a beautiful and unique product of nature, which is characterized by distinctive variations in grain and color. These natural variations in color and grain are not flaws but are a part of the natural beauty and uniqueness of hardwood flooring. These inherent variations should be expected and serve to enhance the natural beauty and enduring charm. Upton Wood floors are manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type.

- The installer assumes all responsibility for final inspection of product quality. This inspection of the whole flooring should be done before installation. Carefully examine the flooring for color, finish and quality before installing it. Use reasonable selectivity and hold out or cut off pieces with glaring defects whatever the cause. If the flooring is not acceptable, contact your dealer immediately.
- Before beginning installation of any hardwood flooring product, the installer must determine that the environment
 of the job site and the condition and type of the subfloor involved are acceptable, ensuring that it meets or exceeds
 all requirements which are stipulated in the Upton Wood Flooring installation instructions which follow. Upton Wood
 Flooring declines any responsibility for job failure resulting from or associated with inappropriate or improperly
 prepared subfloor or job site environment deficiencies.
- Prior to installation, the installer/owner has final inspection responsibility as to grade, manufacture and factory finish.
 The installer must use reasonable selectivity and hold out or cut off pieces with deficiencies.
- The use of stain, filler or putty stick for the correction of defects during installation should be accepted as normal procedure.
- Should an individual piece be doubtful as to grade, manufacture or factory finish, the installer should not use the piece.
- When Upton Wood Flooring is ordered, a 5-10 % allowance factor, depending on layout, must be added to the
 actual square footage amount needed. (Diagonal installations and/or board width of 5" and over may require up
 to a 10-15 % allowance factor.)
- Warranty exclusions are, but not limited to, surface checking resulting from low humidity, mildew or discoloration resulting from extreme sub-floor moisture.

JOB SITE INSPECTION & ACCLIMATION

- This type of flooring can be installed below, equal or above ground level. Do not install in a bathroom.
- In a new construction, hardwood flooring should be one of the last items installed. All work involving water or moisture (plumbing, acoustical ceilings, dry wall taping, etc.) should be completed prior to wood flooring being installed. Heating and air systems should be fully operating maintaining a consistent room temperature at 16°C to 27°C (60-80° F) and a constant relative humidity of 40% to 55%.
- Flooring should not be delivered until the building has been closed in and cement work, plastering, painting and
 other materials are completely dry. Concrete and plaster should be cured and at least 60 days old. Check
 basements and underfloor crawl space to be sure that they are dry and well ventilated to avoid damage caused
 by moisture.

- Handle with care. Do not stand on ends. Store Upton Wood flooring in a dry place being sure to provide at least a
 four-inch air space under and around cartons.
- Do not store directly on concrete or near outside walls. Cartons should be placed in the installation area.
- Flooring should be at the job site at least 72 hours for flooring up to 190mm width (7 days for flooring up to 300mm).
- The humidity level of the house must be maintained between 40 % and 55 % all year long. Wood is a living product which reacts to humidity level variations. During summer, where the humidity level is at its highest point, the wood has a natural expansion and absorbs the humidity, these variations must be dealt with adequate dehumidification. As for winter, when the heating system is working, the humidity level is lower. It is then recommended to use a humidifier to minimize the extreme effects of shrinkage.

INSTALLATION METHODS (Floating, stapled and Glued down) AND APPROVED SUBFLOORS

| Type of subfloor | Floating | Stapled ⁽ | Glue d |
|---|----------|----------------------|-----------|
| Plywood 5/8" –OSB 23/32" (truss/joist of 16" c/c or less) | YES | YES | YES |
| Plywood 3/4" T&G –OSB 23/32" (truss/joist of 19,2" c/c or less) | YES | YES | YES |
| Concrete | YES | NA | YES |
| Ceramic tiled floor, terrazzo, slate and marble | YES | NA | YES |
| (Concrete) Radiant Subfloor heating | YES | NA | YES |
| Radiant heating (plywood) | YES | YES | YES |

Subfloor conditions

- CLEAN Scraped or sanded, swept, free of wax, grease, paint, oil and other debris.
- HORIZONTAL / FLAT Maximum tolerance of 5mm over 3 m (3/16 " over 10") or 3mm over 2 m (1/8" over 6").
- Sand high areas or joints. If the floor is glued, fill the fill low areas with a latex additive cement surfacing product with a minimum resistance to compression of 20 000 kPa.
- Concrete Slabs (regardless of existing floor covering): Use an approved calibrated concrete Moisture Meter as a preliminary measurement for moisture. Concrete subfloors must be finished at least 30 days before performing a test. Acceptable verification methods: Perform a polyfilm test. Tape down 2' x 2' polyfilm squares (a clear garbage bag or plastic drop cloth will do) in several places on the floor. Wait 24-48 hours, and then check for the appearance of condensation on the inside of the bag or plastic for a darkening on the concrete subfloor. Either occurrence signals the likely presence of excess moisture, which needs other measures with the concrete moisture meter Tramex. The measure must not climb over 4,5 on the superior graduation. The floor can be glued directly on concrete with a compression resistance of at least 20 000 kPa (3 000 lb/in2).
- Wood Substrates: Test the moisture of the wood substrate using a calibrated moisture meter approved for testing
 wood moisture according to the meter manufacturer. The reading should not exceed 12% or read more than a 4%
 difference than moisture content of products being installed.

Radiant Subfloor heating

NOTE: Always make sure that the selected product is recommended for this type of installation. Some species are not compatible and cannot be installed on this type of subfloor; Jatoba, American Maple, Kempas, Ironwood, Ipé, Asian Mahogany, etc are some species that are not suitable for Radiant heating. Please ensure that the species you have chosen is suitable.

- The heating system must be functional and working for at least 7 days prior to the floor installation.
- Stop the heating and let the floor cool down to ambient temperature for 3 or 4 hours before starting the floor installation.

- Immediately start the radiant heating system after the installation. The temperature of the finished surface cannot exceed 27 °C (80 °F) at any time for the duration of the flooring's life span.
- Radiant heating systems usually procure a dry heat which can lower the ambient humidity level. It could be
 necessary to use a humidifier to maintain a recommended level of 40 % to 55 % and prevent any damage to the
 floor.
- Flooring installed on a radiant heating system must be glued at each end, in order to reduce the shrinkage in length. Apply a layer of recommended wood glue on the grooved side before inserting the strip.

REQUIRED TOOLS FOR PROPER INSTALLATION

Power Tools

• Table Saw, Electric Miter Saw, Band Saw, Chop Saw, Power Jamb Saw, or Jig Saw

Hand Tools

- Broom and dust pan or Vacuum
- Tape Measure
- Moisture meter (wood, concrete or both)
- Chalk line & chalk
- 3M Blue Tape
- Hand saw
- Hammer
- Rubber mallet
- Tapping block
- Pry bar
- Filler stick and Touch-up marker
- Hardwood Floor Cleaner

Additional Tools for Glue-Down

- Recommended Adhesive & Adhesive Remover
- Trowel (Follow adhesive manufacturer's instruction)

Additional Tools for Staple-Down Installation

- Pneumatic Stapler/Nailer
- Staples/Flooring Cleats
- Drill

Additional Tools for Floating Installation

- 6 mil Polyethylene Vapor Barrier
- Foam Underlayment
- Good quality PVA Glue

STEP BY STEP INSTALLATION INSTRUCTION

(Glued down application)

STEP #1 - Establish a starting line

- For best visual effect, it is recommended that flooring be installed parallel to the longest wall in the room.
- Using a chalk line the area between the wall and the chalk line becomes your working area for starting
 installation, and your last installation area for completing the installation.

STEP #2 - Spread the adhesive

• Apply the recommended adhesive with a trowel according to the manufacturer installation instructions (found on the adhesive pail) for the specific adhesive that is being used.

STEP #3 - Install the strips

- Always select your strips with care. The more deeply colored strips should be installed where they are less visible. Pieces with flaws should be recut.
- Using the working area to install your flooring, line up the first strip with the tongue facing the wall, then press the strip into the adhesive and against the holding block.

- Leave 1/4-inch (6 mm) between the wall and the end of each strip in each row.
- Start the second row with a strip of at least 12-inches (30 cm) shorter or longer than the strip used in the first row. This will avoid aligning or clustering the end joints.
- Continue with the subsequent rows in the same manner.
- To avoid shifting or gaping of the strips during installation, use 3M blue tape to hold them together. Remove the tape within 24 hours. Avoid use of masking tape, which leaves an adhesive residue and may damage the finish.
- When you get to the final row you will likely find it necessary to rip-saw the strips to fit against the wall. Install using the pry bar and leave 1/4 -inch (6 mm) minimum expansion spaces.

STEP #4 - Install the transition pieces

- Install any transition piece that may be needed, such as stair nosing, and reducers. These products are available
 prefinished to blend with your flooring. Please install these first so that you can match the next board easier, color
 match on mouldings cannot be guaranteed due to the natural characteristics of wood flooring.
- Reinstall your baseboards and/or quarter round mouldings. Be certain to nail the mouldings into the wall, not the floor.
- Always keep a few spare strips from your initial installation for possible repairs in a sealed carton and properly stored
- Wait 24 hours before moving furniture and appliances back into the area where flooring was installed.

STEP-BY-STEP INSTALLATION INSTRUCTION

(Nailed/stapled down application)

Set-up and Use of Pneumatic Staplers and Nailers

- Read and follow the manufacturer's instructions for complete set-up and operation of equipment.
- Make sure the adapter size for the stapler or nailer matches the thickness of the flooring being installed and that the tool's adapter seats properly in the tongue of the flooring.
- Pneumatic nailer: Air pressure should be adjusted adequately for each species of hardwood floor installed and checked regularly (always try it before using).

STEP #1 - Establish a starting line

- Using a chalk line, draw a guideline.
 - It is very important to start straight and square.

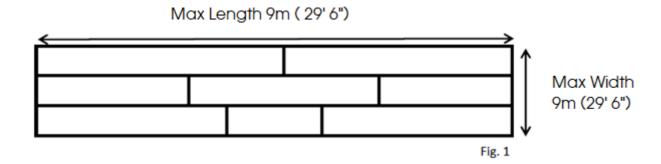
STEP #2 - Install the floor

- Always select your strips with care. The more deeply colored strips should be installed where they are less visible (i.e.
 in a closet or under the refrigerator). Pieces with flaws should be recut.
- Use the longest, straightest strips available for the first row.
- Install the first row of flooring with groove facing starter wall.
- The first few rows must be nailed down by hand rather than with the nailing machine because of the vertical wall
 obstruction. Nailing interval should be at 6 inches. Leave 1/4-inch (6 mm) between the wall and the end of each
 strip in each row.
- Start the second row with a strip of a least 15-inch (30 cm) shorter or longer than the strip used in the first row. This will avoid aligning or clustering the end joints.
- When the area is free from wall obstruction, you can repeat the installation using a pneumatic stapler.
- It is also likely that you may have to ripsaw the strips to fit the final row against the wall. Leave 1/4 -inch (6 mm) minimum expansion spaces.
- Finally, install the transition pieces, baseboards and/or, quarter round mouldings.

STEP-BY-STEP INSTALLATION INSTRUCTION

(Floating application)

Important notice regarding expansion space: It is important to include an expansion space of 5/8" (1.5 cm) between rooms (ex: hallway adjacent to a bedroom). You will need to fill this space with a molding. Same rule applies for rooms exceeding 29'6" (9 m), you will also need an expansion space and a molding.



STEP #1 - Install underlayments

Install 6 mil Polyethylene vapor barrier over entire flooring surface. Overlap sheets of Polyethylene 16 inches and tape together creating airtight seal. Run the vapor barrier 1 to 1.5 inches up the walls and secure in place with tape.

Using underlayment, roll out one roll at a time over the vapor barrier. There are many types of underlayments available today. The use of acoustical underlayment will improve the feel and sound transmission of your flooring.

STEP #2 - Preparing the starter rows

It is very important that enough expansion gaps are kept between the flooring and all the walls. This is done by placing ¼ inch (6 mm) spacers every 8 inches apart around all vertical walls.

Measure the width of the room – perpendicular to the direction you intend to install the flooring. The last row of flooring should be no less than 1 ½ inch wide. If it is less, you should rip-saw the starter row narrower. Leave 1/4-inch (6 mm) between the wall and the end of each strip in each row.

Start the second row with a strip of at least 12-inches (30 cm) shorter or longer than the strip used in the first row. This will avoid aligning or clustering the end joints.

STEP #3 - Gluing the floor

In a floating floor installation, the flooring is not glued or nailed to the underlayment but is glued in the board's side and end grooves only. This is achieved by applying a bead of glue on the upper side of the groove along the entire length and on the end of each plank with a good quality PVA glue. Turn the board upside down when applying the adhesive to achieve proper application, when the board is turned again for installation with the finish side up, this will allow the adhesive to flow down and give better coverage. Do not apply adhesive on the top of the tongue.

Install the first row of flooring with groove facing starter wall. Use a tapping block and a mallet to gently push or tap the glued strips together until no gaps are seen and making sure that end joints are square.

At the end wall use a pry bar, if needed, to pull the ends of the boards tight. Continue laying the floor on top of the underlayment, working left to right, tapping the strips tight together. Make sure to continue using ¼ inch spacers along the wall throughout the installation.

To avoid shifting or gapping of the flooring during installation, lay perpendicular strips of 3M blue tape to hold the strips together. Remove the tape within 24 hours. Avoid use of masking tape, which leaves an adhesive residue and may cause damage to the finish.

The last row will most likely require cutting to width, but it should be no less than 1 $\frac{1}{2}$ inch wide. To do this, place a full row of strips on top of the last row installed. Insert a $\frac{1}{2}$ inch spacer against the wall, and using a full width strip, trace distance from wall onto final row. Cut strips for final row to designated width. Apply glue and pull into place with a pry bar.

Allow floor to dry for a minimum of 12 hours before removing all the spacers and allowing foot traffic. Finally, install the transition pieces, baseboards and/or, quarter round mouldings.

COMPLETING THE JOB – ALL INSTALLATION

Clean the floor with Hardwood Floor Cleaner. Please ensure that any adhesive on the finish is cleaned before leaving. Dried or cured adhesive cannot be removed.

Install transition pieces.

Inspect final floor for nicks or minor gaps and fill with appropriate color wood putty. Use plywood or hardboard when moving heavy appliances or furniture across floor.

CARE GUIDE

Your Upton Wood Floor will add warmth and beauty to your home for many years to come. Following a few simple maintenance steps, will help protect your investment and keep your Upton Wood Floor like new.

CLEANING

- Use a damp cloth to blot up spills and spots as soon as they happen. For tough spots such as oil, paint, markers, lipstick, ink, tar or cigarette marks, use acetone/nail polish remover then wipe with a damp cloth. Always avoid allowing liquids to stand on your floor.
- Regularly vacuum, (using the hard floor attachment not the beater bar), dust mop or sweep the floor to prevent sand or abrasive dust from accumulating and scratching the finish.
- Periodically clean the floor with Upton Wood or approved hardwood floor cleaner, which are specially formulated for the finish.
- Do not use oil based, wax, polish, or strong ammoniated or abrasive cleaners, steel wool or scouring powder to clean the floor
- Do not wash or wet-mop the floor with soap, water, oil soap detergent or any other liquid cleaning material. This could cause swelling warping, delaminating and joint-line separation, and void the warranty.
- DO NOT use any type of polisher.

PROTECTING

- Use quality area rugs and doormats by outdoor entrance areas to prevent dirt, sand, grit and other substances such as oil, asphalt or driveway sealer from being tracked onto your floor.
- Sweep, dust or vacuum the floor regularly to prevent accumulation of dirt or grit that can scratch or dull the floor finish.
- Use floor protectors and wide bearing leg bases/rollers to minimize indentations and scratches from heavy objects. As a rule of thumb, the heavier the object, the wider the floor protector should be.
- Do not use rubber or foam backed plastic mats as they may discolour the floor. To prevent slippage, use an approved vinyl rug underlayment.
- Maintain a normal indoor relative humidity level between 40% and 55% throughout the year, to minimize the natural
 expansion and contraction of wood. Failure to provide adequate relative humidity in the home by the use of a
 humidifier or a dehumidifier will void the warranty.
- Avoid gouges or cuts in your floor from sharp objects. While your Upton Wood floor is one of the most wear resistant floors on the market, sharp or pointed objects can nevertheless damage it.

- Don't walk on your floor with stiletto-style heels, spiked golf shoes or cleats; they may cause indentations in your floor.
- Rearrange area rugs and furniture periodically so the floor ages evenly. UV sunlight will soften or darken the tone
 of different species of hardwood to varying degrees
- Use a dolly when moving heavy furniture or appliances. But first, put down a sheet of quarter inch plywood or Masonite to protect the floor. Never try to slide or roll heavy objects across the floor.
- Keep pet's nails trimmed, or consider "booties" available at pet store.