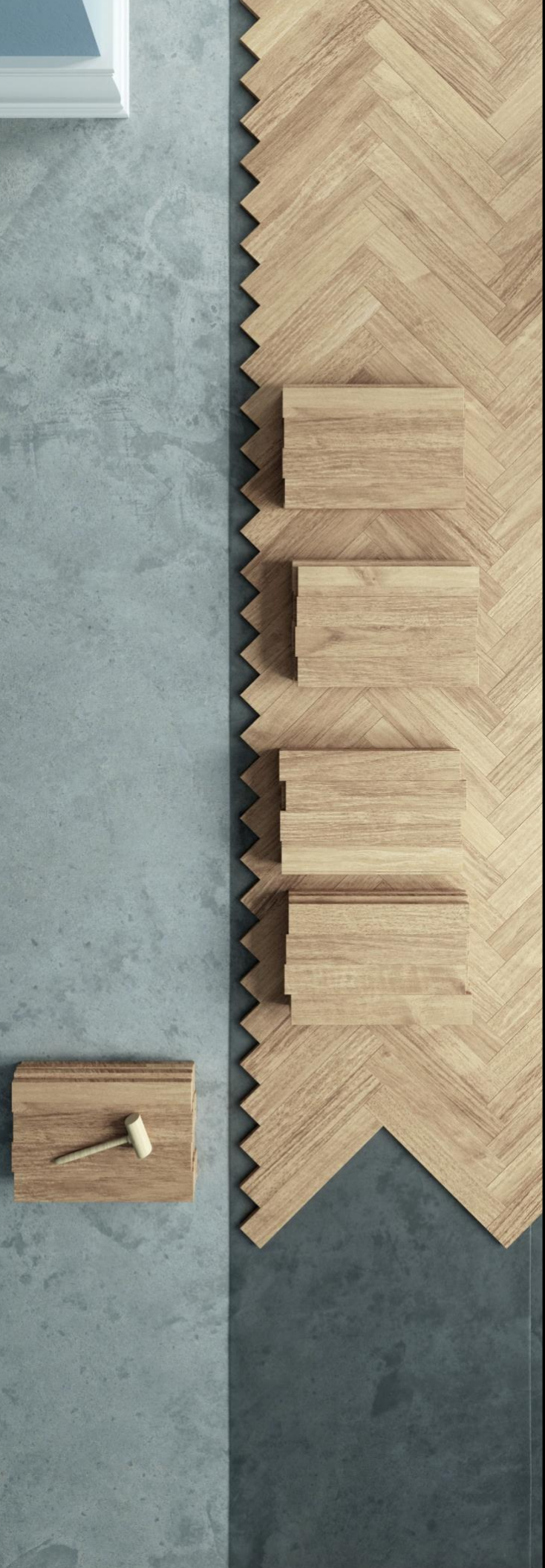




BIYORK

NOUVEAU 6
HARDWOOD

INSTALL INSTRUCTIONS



BY INNOVATION. BY DESIGN. BIYORK.

Every aspect of our floors are designed in pursuit of performance ready for the world.

We Believe that everything we do is a movement towards an alluring combination of Dynamic Performance and Modern Craftsmanship. We do this by making every inch of our floors push the boundaries of Innovation forward with Beautiful Designs, Ease of Installation and Our Obsession For The Next Best Thing.

Together, we deliver the foundation that reflects your Personality and create the Ultimate Statement in any space.

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OWNER/INSTALLER RESPONSIBILITIES – BEFORE YOU BEGIN YOUR PROJECT

Installer/Owner assumes all responsibility to inspect all flooring before installation. Inspect each board carefully for damage prior to installing it. Our floors are manufactured in accordance with accepted industry practices which permit a defect tolerance not exceed 5%. These defects may be the result of manufacturing or naturally occurring characteristics of the wood material. It is recommended that a minimum 5% cutting or grading allowance be added to the total square footage required. Boards that are judged to be defective should not be installed or should be installed in an inconspicuous location where they will not be noticeable (e.g. inside a closet). If the installer/owner feels flooring material is off-grade, wrong colour, improperly manufactured, wrong gloss level and finish problems, DO NOT INSTALL the flooring. Immediately contact the seller from which the flooring was purchased. The installer/owner is fully responsible for all installed hardwood flooring.

Installation Warrants Acceptance

Prior to installation of flooring, installer/owner must determine that the jobsite environment and subfloor meet or exceeds all applicable standards.

BiYork warranties DO NOT cover materials that are installed with visible defects.

BIYORK declines any responsibility for wood floor failure after installation resulting from job site environment, construction damage, or subfloor deficiencies.

CAUTION: Wood Dust

Wood dust becomes a potential health problem when wood particles from cutting become airborne. Breathing these particles may cause allergic respiratory symptoms, mucosal and non-allergic and possible cancer. The extent of these hazards and the associated wood types has not been clearly established. It is recommended to use Power tools equipped with a dust collection system. If high dust levels are unavoidable, an appropriate NIOSH-approved dust mask should be used. Avoid contact with eye and skin.

ON-SITE PREPARATION

EVALUATE JOBSITE TO ENSURE READINESS

All wood products are hygroscopic, they will contract and expand with the changing of the seasons. The use of appropriate environment may reduce the degree of contraction (shrinking) and expansion.

Make sure your project site is ready. All wet trades (concrete, plastering, masonry, drywall, spray texture and painting) should be completed with ample time for drying allowed. New concrete must be cured at least 60 days prior to delivery of wood floor. The building should be enclosed and the heating/cooling/system operational for a minimum of 14 days. The flooring should not be delivered until the environment is at normal living conditions (approximately 70° F and interior relative humidity between 35 to 55%). Cartons of our products must be opened and be laid flat in the room where they are to be installed for a minimum of 72 hours before being installed.

ACCLIMATION

BIYORK recommends the engineered wood flooring be acclimated in the controlled environment before installation for 72 hours.

Acclimation depends on geographical location, interior climate control, and time of year. The reason for acclimating the wood flooring before installation is to allow the moisture content of the wood to adjust to the installation jobsite's "expected normal living conditions"- that is temperature and relative humidity that will be experienced once the structure is occupied. Typically, RH fluctuates no more than 20% per geographical location.

Jobsite Conditions must be maintained between 60-80°F (15-26°C) and relative humidity between 35-55% before, during and after the installation.

Cartons should be stored away from any heating/cooling ducts.

Cartons should be stored away from direct sunlight.

5" of airflow around is required for the cartons to be stored with.

MOISTURE TESTING

Concrete Subfloors

Moisture testing is an essential part of determining the suitability of a concrete slab to receive our engineered hardwood floor covering. Moisture testing must be performed on all concrete slabs and should be conducted with the area at service conditions (i.e., with the permanent HVAC in operation, fully enclosed with all outside doors and windows, radiant heat in full working order).

Concrete subfloors must be tested for moisture as per ASTM standards.

- **Calcium Chloride Test (ASTM F 1869):** The maximum vapor emissions cannot exceed 3lbs/1000SF in 24 hours.
- **In-Situ Probe Method (ASTM F 2170):** The Rh levels should not exceed 75%. Testing procedure can be found in the NWFA installation guidelines.

Wood Subfloors

- There are many methods to test the moisture of subfloor. We recommend the test to be done with a quality moisture meter such as Delmhorst, Wagner, Tramex, or Lignomat.
- Use pin or pin less wood moisture meter to test the moisture. The wood subfloor moisture content should not exceed 12%. (the subfloor should not exceed 4% differential between the ENG hardwood floor & subfloor)
- Moisture testing on wood subfloor requires 20 measurements per 1,000 SF.

Wood Flooring

Test the wood flooring to ensure moisture content is within allowable limits. Open several boxes of product and test moisture content of the wood flooring with a professional moisture meter. Wood flooring should have a moisture content between 6% and 9%.

Subfloor Requirements

Our engineered flooring may be installed over concrete, OSB, or plywood subfloor within the following parameters:

- Subfloor must be flat, meeting a minimum of 3/16" in 10' radius and/or 1/8" in 6'. Level low spots with appropriate leveling material.
- Subfloors must be clean. Scrape or sand the subfloor to remove all foreign materials.
- Subfloors must be free of loose areas and squeaks before installation can start. Re-secure any loose subfloor as necessary
- Subfloor must be dry before you begin installation (see moisture testing above)

Concrete

- New concrete slabs require a minimum of 60 days drying time before covering, the slab must be fully cured.
- Ensure concrete has a minimum of 3000 PSI compression, lightweight concrete less than 3000 PSI use a floating installation.
- To check for lightweight concrete, draw a nail across the top of concrete surface. If it scratches or indents, it is probably a lightweight concrete.
- Remove all paint, oil, existing adhesives, wax, grease, dirt, sealers, and curing compounds. Do not use solvent-based strippers the residual solvents can prevent the satisfactory bonding of the vapor barrier and/or adhesive systems.

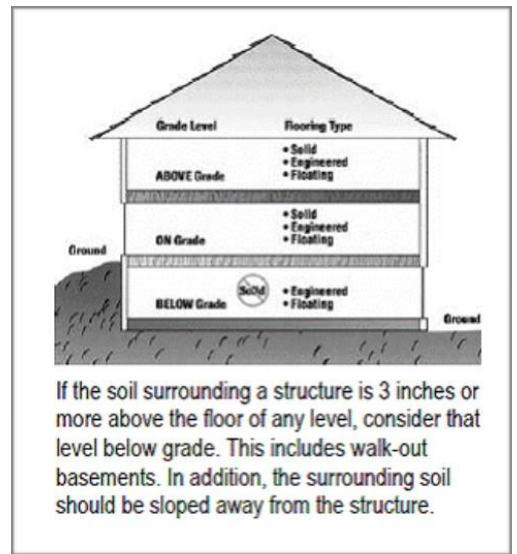
BIYORK is not responsible for the connection between the flooring and concrete substrate.

Wood Subfloors

- Biyork requires subflooring 3/4" (23/32", 18.3 mm) CDX grade plywood subfloor/ 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 Subflooring - 5/8" (19/32, 15.1mm) CDX plywood subfloor/underlayment (Exposure 1), 4'x8' sheets, maximum 16" on center joist construction.
- Follow subfloor panel manufacturer's recommendations for spacing and fastening schedule.
- 1x6" pine subfloor over joists 16" on center is acceptable as long as structurally sound. **DO NOT** nail over particleboard or products of a similar nature as you will void your warranty.
- If high or low spots in the subfloor exceed the tolerances specified above, sand down the high spots and fill the low spots with leveling compound approved for installation method, or other material approved for use under wood flooring. NWFA states it is the builder's or general contractor's responsibility to provide the wood-flooring contractor with a subfloor that is within the tolerances listed above.
- Nail or screw any loose areas of wood subfloor prior to installation to minimizing subfloor squeaking. Any subfloor with excessive vertical movement will cause squeaking.
- Check for appropriate subfloor moisture levels as per NWFA requirements.

Our engineered hardwood flooring may be installed:

- Above, on, or below grade
- **DO NOT** install flooring in a bathroom, laundry room, or any area that may experience elevated moisture, such use will void the product warranty.
- **DO NOT** install Hickory over radiant heat applications.



STAPLE/NAIL DOWN/Glue Assist METHOD

Do Not Use Staple/Nail Down Method over Radiant Heat

- Undercut door casings and jambs using jigsaw or handsaw.
- Remove any existing shoe-mold or baseboard and save to re-install upon completion.
- Roll out and staple down acceptable vapor retarder with a perm rating of .7 and less than 10 and overlap seams a minimum of 4 inches or more.

Approved Vapor Retarders

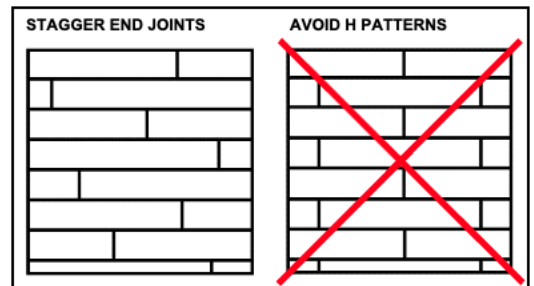
- Aqua-bar
- Silicone Vapor Shield
- Asphalt-Saturated Felt: ASTM D 226, Type I #15 Tar Felt

Flooring Direction

- It is recommended engineered flooring be installed perpendicular to floor joists or on a diagonal for any single layer panel type subfloor.

Wall Line Layout

- Starting from the longest wall will provide the best visual effect.
Stagger all plank end joints at least 6" apart in adjacent rows, avoid H patterns.
- Work from 3 or more cartons to ensure maximum colour and shade blend.
- Select and use the straightest and longest planks should be used for the first few rows. Lay the remainder out on the floor in the general pattern in which they will be installed. Those with concerns must be removed and cut and used as starter or closing planks or in closets, under cabinets or discarded as waste.
- Lay the groove edge of the flooring facing the wall, leaving a minimum of 1/2" expansion space between the groove edge and the starting wall. This expansion space will allow for the wood to expand if necessary due to environmental changes.
- Lay the first row and top nail surface 10 to 12" apart on face of flooring, and countersink if necessary. Fill holes with approved matching wood putty
- Each additional row of flooring with floor-nailing machine until the last row and any area that the nailer will not fit. Fasten flooring through the tongue on a 45-degree angle (blind nailing) using the appropriate power nails or cleats that machine manufacturers recommend.

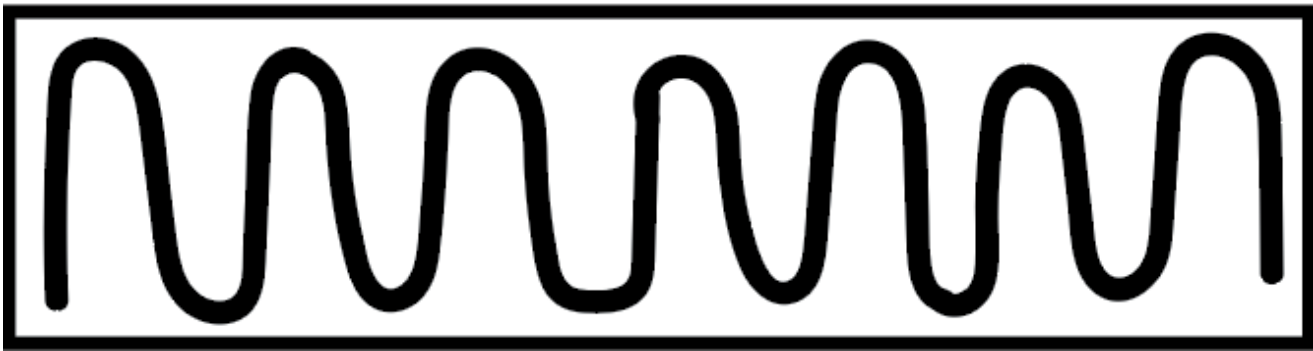


- **Fastening Schedule**

- Staples 16 gauge 1 ½ - 2 inch
- Cleats 16 gauge 1 ½ - 2 inch

- 2-3" off plank end
 - 6-8" in the field
 - Always test fastening equipment prior to installation.
 - Ensure staple or cleat, is seated properly within the nail bed.
- Cleats are preferred for high-density wood species. Minor occasional noise (such as squeaking) within the flooring is inherent to all staple and nail down applications and can occur as environmental conditions change.
 - Mechanically fastened products are not warranted against squeaking or popping sounds.

BIYORK – GLUE ASSIST RECOMMENDATION



- Lazy S pattern or Serpentine method – Industry Standard Application.
- **Engineered Wood Flooring 6" inches or wider**, we recommend the glue assist method.
- Nouveau 6 – recommended
- Nouveau 7 – recommended
- **Nouveau 8 – Required**
- Glue-assist is an asset that could minimize plank movement, strengthen overall stability, and combat potential unwanted noise concerns.
- Polyurethane adhesives can be used.
- Please note some OSB subfloors may not be suitable for glue down or assist applications as these substrates contains wax resins, which can lead to adhesion failure.
- Plywood subfloors are recommended for this application.

NOTE: SPECIAL INSTRUCTIONS FOR WIDE WIDTH (>7"/180MM) FLOORING

Shrinkage and cupping in wide width flooring may be reduced by gluing the flooring to the subfloor along with the use of mechanical fasteners. Glue-assisted applications will not perform correctly without direct contact with the subfloor. The glue should be a premium grade urethane flooring adhesive applied in a serpentine pattern to the back of the hardwood flooring.

- The last 1-2 rows will need to be face nailed when wall clearance does not permit blind nailing. Pre-drill holes on the surface of the planks 1" (2.5cm) in from the front edge (tongue side), and 3" in from the ends. Space the holes 10"-12" apart. Secure nails using a hammer and nail set.
- At the final row, measure the width of the space for the last row of boards. You may need to rip the planks to match the width of the space remaining.
- Always fill nail holes with approved putty.

Glue Down Method

- Flooring can be glued directly to concrete/gypsum with a minimum compressive strength of 3000 PSI.
- **DO NOT** install over steel toveled, slick, burnished, painted or sealed concrete. Abrade, grind, or roughen surface as necessary per flooring adhesive manufacture requirements.
- Use an appropriate NIOSH-designed dust mask and dust containment system.

- Biyork recommends completing a bond test prior to installation to ensure maximum bond performance.
- INSTALLATION LAYOUT—FOLLOW SECTION OULINED ABOVE**
- **SPREADING THE ADHESIVE—FOLLOW FLOORING ADHESIVE MANUFACTURER'S GUIDELINES**

Radiant Heat Applications

BIYORK Engineered Hardwood floors are approved for installation over radiant heated subfloors using either floating method or Gluedown over radiant heat **ONLY** for the applicable product **(Hickory is not a suitable species over radiant heat. As it has the tendency to split and check when low moisture content levels are present). Nail or Staple Down installation methods are not recommended for Radiant Heated Subfloors.**

NOTE: If the chosen method of installation is by gluing, check with the adhesive manufacturer for detailed instruction for the proper method(s) of application/preparation before the installation begins.

Radiant Heating Systems must be specifically designed and controlled for hardwood flooring by the radiant heat system manufacturer which will include an outdoor temperature sensor, and subfloor surface temperature sensor.

The end user/homeowner should be aware that minor gapping between wood planks during the heating season is a normal occurrence with any hardwood flooring installed over radiant heated subfloors. The use of proper humidity controls such as humidifiers within the installed area will help minimize natural wood reaction to seasonally changing interior climate conditions.

Temperature/RH Requirements

The indoor relative humidity should be maintained between **60-80° F** and a relative humidity range of **35%-55%** at all times. It is critical that the relative humidity does not drop below 35%, otherwise you may experience the following condition(s) to include gapping/shrinking, checking, cracking, splitting, warping, bowing and wearlayer delamination.

During the heating season expect some separations between the edges of each plank. Make sure that the floor moisture content does **NOT** go below 7%. Change the temperature setting only 2 to 3 degrees up or down in a 24-hour period is recommended, otherwise you may experience the conditions mentioned above.

Newly installed water type radiant heated flooring systems should be in operational mode with the temperature set between 64° -72°F, for a minimum of 4 weeks to drive out all subfloor moisture ensuring the subfloor is dry.

Older water type radiant floor heat systems should be fully pressure tested, properly maintained, and set to a minimum of 64°F, for at least 4 days before flooring delivery; acclimation, or installation processes may begin. If installation is by gluing the floor down always follow adhesive manufacturer's guidelines.

All radiant heating systems must be set to room temp. (A minimum of 64°F), for at least 4 days before flooring delivery; acclimation, or installation processes may begin. Always check wood subfloors to ensure that the moisture content is less than 12% using an accurate wood moisture meter. It is recommended to document all moisture measurements pre, during the flooring installation.

Concrete

Concrete subfloors must be "dry", using ASTM F 2170 or ASTM F 1869, the use of an electric moisture meter only provides indication of surface MC. Refer to NWFA for concrete testing requirements.

When gluing down the wood floor, the pH level of concrete subfloors should be within the adhesive manufacturer's guidelines.

Subfloors must fully comply with these “dry” requirements before proceeding with the delivery, acclimation, or installation of the wood flooring at the job site.

After completing the installation, do not change the radiant heat setting for 48 hours and refer to flooring adhesive manufacturer requirements.

Throughout the life of the installation, 2 to 3-degree daily increments must be used when adjusting system temperature for either upward or lower adjustments; so that the hardwood flooring can adjust to the temperature changes in a gradual manner.

The flooring surface temperature should never exceed 80 degrees Fahrenheit.

Regulate the jobsite to ensure that the relative humidity is between **35%-55%**, and that temperature is between **60°-80° F**, throughout the flooring delivery, acclimation, installation and any required curing processes.

Floating Installation Method

- **BIYORK** Engineered Wood Flooring can be installed as a floating floor system over almost all types of subfloors including Plywood, OSB, Existing Wood Floor, Vinyl, Vinyl Tile, and Ceramic Tile provided they are clean, flat, dry and structurally sound, meeting the requirements outlined above under ‘Subfloor Requirements.’
- **BIYORK** Engineered Wood Flooring boards must be at least 3” wide to be installed as a floating floor system. For Floating Floors, you will need the General Tools and Accessories
- **BIYORK** recommends Deccobond-18 and Titebond III adhesives. All other adhesives must be approved by the adhesive manufacturer in accordance to **BIYORK’S** installation recommendations
- Underlayment: we recommend 1/8" thick Two-in-One pad (pad plus vapor barrier) or 1/8" or 1/4" cork underlayment
- Waterproof packing tape (for use on underlayment only)
- If tape is needed to hold installed boards together while the glue sets (we recommend avoiding its use if possible), use Scotchblue by 3m Delicate Surfaces Painter’s Tape, and be sure to remove any tape within 20-30 minutes of application. Leaving tape on for more than 20-30 minutes or using the wrong type of tape may damage the finish.

Floating Installation Steps

- If possible, use an outside wall as the starting point. Roll out the first run of underlayment from wall to wall parallel to the starter wall. If installing over underlayment plus a separate layer of poly film, install the 6-mil poly film first. Tape all seams with waterproof tape.
- Measure out from the starting wall the width of the flooring plus the appropriate expansion space for that thickness of flooring. On the installed underlayment mark two points toward each end of the starting wall and chalk a line the full length of the wall through the marks. This is the starter line.
- Lay the first row of flooring using only long boards. The first board and the last board in this row should be a minimum of 12" long and cut to provide the appropriate expansion space on each end. Apply a 1/8" continuous bead of T&G glue on the bottom side of the groove of each end joint. Align the tongue side of the starter row along the chalk line and engage the end joints together. Use shim wedges along the long wall and at both ends of the row to keep the floor in position and maintain the appropriate expansion space.
- Lay the second and third row of boards. End joints should be separated by a minimum of 8" from the adjacent row. Spread a 1/8" bead of T&G glue along the bottom side of the long groove and each end joint groove on the second row of flooring. Engage the groove side of the second row with the tongue of the starter row. Engage the end joints at the same time, aligning them and cutting at the end of each row to allow for appropriate expansion space. Continue this procedure for the third row. These three rows must be aligned straight to ensure that the rest of the installation remains straight. If flooring boards do not

easily engage together, use a tapping block or pull-bar. Tape the first three rows together using the recommended masking tape to keep rows straight and joints tight until the glue has set.

- Remove all masking tape within 20-30 minutes of application.

- Continue using the same procedure. Use masking tape as needed to keep the boards together and rows straight, being careful to remove it within 20-30 minutes of application. Avoid working on the installed flooring as much as possible to prevent breakage of the glue joint.
- Complete the installation by reinstalling or installing new base moldings.
- Do not allow foot traffic on the floor for 24 hours after installation is complete.

AFTER INSTALLATION

Sweep/vacuum the floor and clean lightly with approved hardwood flooring cleaner. (See Maintenance instructions below)

Explain to the homeowner the importance of the need to maintain proper temperatures and relative humidity requirements at all time.

If the floor is not going to be occupied immediately, these requirements must still be followed Window coverings should also be addressed at this time, to reduce direct sunlight on the flooring.

Maintenance

The indoor relative humidity levels should be maintained year around between 35% and 55%, and the interior room temperature should be between 60°F (15°C) and 80°F (26°C).

Sweep, dust, or vacuum the floor with the hard surface brush attachment (not the beater bar) regularly to prevent accumulation of dirt or grit that can scratch or dull the floor finish.

UV – Urethane Finish

Use Bona cleaner with Bona cleaning mop as directed on label.

- Do NOT wax or use any oil soap or cleaning product that leave residue on the floor.
- DO NOT use steam assisted cleaning mops on the wood floor.
- Use a cloth to blot up spills as soon as they happen. Never allow liquids to stand on your floor.
- Use mineral spirits or denatured alcohol on a clean white cloth to clean tough spots such as ink, paint, oil, or markers. Wipe the area with a damp cloth to remove any remaining residue.

Inappropriate maintenance might cause damage to hardwood floors and will void warranty. Biyork Materials Canada Inc. reserves the right of inspection if claim is filed.

Disclaimer of Non-Responsibility

Statement/disclaimer of non-responsibility (voids any/all applicable warranties offered by BIYORK) pertaining to labor/ material costs and or damages caused to any/all cabinets, furniture, counter tops, built-in ranges/stoves,

moldings/trims, fixed furniture/wall units, wall paper, painting, specialized plaster coatings, etc., as a result of removal of the flooring due to cupping, buckling, twisting, bowing, shrinking, lifting, moving etc. Biyork reserves the right to void any/all warranties if, and when guidelines above are not followed. The general/flooring contractor/designer/homeowner/etc., assumes ALL responsibility for any/all damages/costs incurred if hardwood flooring is installed without complying to the installation guidelines mentioned above.

In the unlikely event of a claim under **BIYORK** Warranty, **BIYORK** reserves the right to conduct inspections of the **BIYORK** flooring and or finish subject to the claim. These inspections may be carried out by a NWFA inspector at any time after a claim has been filed. During this time, **BIYORK** has the right to conduct as many inspections as needed to establish proof of claim.

Under no circumstances shall **BIYORK**, be responsible for any claim, loss or damage arising from the purchase or use of its products that seeks to recover special, indirect, incidental, consequential damages or attorney's fees regardless of the theory of recovery and without limitation.

All claims submitted consistent with this Warranty require evidence of the purchase date and identity of the original purchaser along with proof of required maintenance.

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BIYORK product specifications are subject to change.
Colours may vary due to hardwood being a natural product.
Please always refer to a physical sample for reference.

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