

Installation Guide

ATTENTION – INSTALLER/OWNER RESPONSIBILITY

Wood is a natural product containing natural characteristics in colour, tone and graining. Slight variation in colour is to be expected in a natural wood floors cannot be guaranteed against natural variation in each plank. The owner/installer assumes all responsibility for final inspection of product quality.

Warranties DO NOT cover materials with visible defects once they are installed.

JOBSITE CONDITIONS

Due to the Stability of this floor's engineered construction acclimation to the jobsite is not required unless the flooring will be transported from one extreme temperature into another. If there is a severe temperature difference, make sure to condition the cartons of wood flooring and adhesive, if being used, 24 hours before the installation. Adhesives by Bostik are recommended.

Exterior grading should be completed with surface drainage offering a minimum drop of 75mm in 100mm to direct flow of water away from the structure. All gutters and downspouts should be in place.

-All outside doors and windows must be in place. All concrete, masonry, plastering and other "wet" work must be thoroughly dry. The wall coverings and paintings should complete except for the final coat on the base mouldings. When possible, delay the installation of base mouldings has to be delayed until flooring installation is complete. Basements and crawl spaces must be dry and well ventilated.

-Floortek flooring products may be installed below, on or above grade level.

-Crawl spaces must be a minimum of 600mm from the ground to underside of joists. A ground cover of 8mm polyethylene film is essential as a vapor barrier with joints lapped 200mm and taped. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square meters. These vents should be properly located to foster cross ventilation. Local regulations may prevail.

Do not install Floortek flooring boards in separated bathrooms.

-The installation site should have a consistent room temperature between 15-24°C and humidity of 40-55% 14 days prior installation to guarantee for proper acclimation. Room humidity should never exceed 40-55%. Due to possible shrinking or expanding it could crack, split, bow, crook or even delaminate.

-The sub-floor must be checked for moisture content by an appropriate testing method. Test results must be recorded.

-Handle and unload the flooring boards with care. Store in a dry place and make sure to have a 100mm air space under bundles, which are stored upon "on-grade" concrete floors. Flooring should not be installed until the building has been finished with windows and doors in place and until cement work, plastering and all other "wet" work is completed and dry. Concrete should be at least 60 days old.

-Floortek flooring products must be stored in the environment in which it will be installed for at least 72 hours prior to installation.

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVE.

SUB-FLOOR PREPARATION AND RECOMMENDATIONS

All subfloors must be installed as recommended by their manufacturers. Warranties offered for these wood floors do not cover problems caused by inadequate or improper installation.

CLEAN-Subfloor must be free of wax, paint, oil, sealers, adhesives and other debris.

LEVEL/FLAT-Within 3/16" in 10'(5mm in 3m) and /or 1/8" in 6'(3mm in 2m). Sand high areas or joints. If the floor is to be glued down, fill low areas with a latex additive cementitious leveling compound of 3,000-PSI (20000 kPa) minimum compressive strength. Follow the instructions of the leveling compounds are completely dry before beginning installation. When mechanically fastening the floor down, flatten low spots with layers of 15# builders felt. Plywood or Shims(not leveling compounds). Leveling materials must provide a structurally sound subfloor that does not affect the holding power of the fastener.

Concrete Sub-Floors

New concrete slabs require a minimum of 60 days drying time. Check moisture content of the subfloor with the appropriate moisture test. Follow the directions provided by the test-kit manufacturer. A reading of more than 2.5% requires use of a vapor retarder. A reading of more than 4% may not be acceptable for wood flooring installation. For detailed information regarding each different kind of subfloor, refer to the latest National Wood Flooring Association (NWFA) Installation Guide.

STRUCTURALLY SOUND- Nail or screw any areas that are loose or squeak. Wood panels should exhibit an adequate fastening pattern, glued/screwed or nailed as system requires using an acceptable nailing pattern. Typical: 6" (15cm) along bearing edges and 12" (30cm) along intermediate supports. Flatten edge swell as necessary. Replace any water damaged, swollen or delaminated subfloor or underlay.

Light weight concrete

Light weight concrete that has a dry density of 100 pounds or less per cubic foot is not suitable for glued down engineered wood floors. Many products have been developed as self-leveling toppings or floor underlayment. These include cellular concrete, resin-reinforced cementitious underlayment for wood flooring installations, others do not.

To test for lightweight concrete, scrape a coin or key across the surface of the subfloor. If the surface powders easily or has a dry density of pounds or less per cubic foot, do not install this Engineered Wood flooring unless using the floating method.

Concrete sub-floors must be dry, smooth (level with 3/16" in a 10 foot. Radius – 1/8" in 6') and free of structural defects. Hand scrape or sand with a 20 grit #3-1/2 open face paper to remove loose, flaky concrete. Grind high spots in concrete and fill low spots with a Portland based leveling compound (min. 3,000 p.s.i.) Concrete must be free of paint, oil, existing adhesives, wax grease, dirt and curing compounds. These may be removed chemically or mechanically, but do not use solvent-based strippers under any circumstances. The use of residual solvents can prohibit the satisfactory bond of flooring adhesives. It is important to ensure a proper adhesive bond between the concrete, and flooring. This

engineered hardwood flooring may be installed on-grade, above grade, as well as below grade where adverse moisture conditions do not exist.

To ensure a long lasting bond, make sure that the perimeter of the foundation has adequate drainage and vapor barrier.

Wood sub-floors

All wood subfloors must be structurally sound, dry, at least 5/8" in thickness if plywood and 23/32 thick if OSB, solidly fastened to appropriately spaced floor joists, and in compliance with all local building codes. For detailed information regarding each different kind of subfloor, refer to the latest National Wood Flooring Association (NWFA) Installation Guide.

First, make sure subfloor is dry. Subfloor moisture content cannot exceed 10% prior to installation of a wood floor. To determine the moisture content use a good quality moisture meter. Next, determine if the subfloor is structurally sound.

Sub-floors other than wood or concrete

Note: Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayments and must be removed.

Terrazzo, tile and any other hard surfaces that are dry, structurally sound and level, as described above, are suitable as a sub-floor for this engineered hardwood flooring installation. As above, the surface must be sound, tight and free of paint, oil, existing adhesives, wax, grease and dirt. Terrazzo and ceramic tile must be scuffed to assure adhesion.

WARNING! Do not sand existing resilient tile, sheet flooring, backing, or felt linings. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.

Radiant Heated Sub-floors

IMPORTANT: Depending on specific flooring construction, some products are approved for glue down installation over radiant heat and others are not. Be sure to check with you retailer or distributor for suitability of your material for glue down, radiant heat installation. The slab surface must never exceed 82°F. (27°C.) in temperature.

Before installing over a radiant-heated floor turn off heat and wait until the floor has reached room temperature. After installing the floor gradually return the heat to the previous setting.

PREPARATION

Remove all moldings and wall-base and undercut all door casings with a hand or power jam saw using a scrap piece of flooring as a guide.

"Racking the Floor"

Whether you choose to install the floor with glue, nails, or staples or by floating, by using random length planks from the carton or by floating, start by using random lengths, differing by at least 6". As you continue working across the floor be sure to maintain the 6" minimum between end joints on all

adjacent rows. Never waste material; use the left over pieces from the fill cuts to start the next row or to complete a row.

Note: When installing a pre-finished wood floor be sure to blend the wood from several cartons to ensure a good grain and shading mixture through out the installation.

GLUE DOWN INSTALLATION GUIDELINES

There are two ways to install when using urethane adhesive (wet lay meaning to lay directly into wet adhesive and dry-lay method meaning to allow the adhesive to flash or to tack up.)

Caution: Whether you choose to install using the dry or wet method follow all guidelines set by the adhesive manufacturer. By not adhering to the guidelines you can void your flooring warranties.

Step 1 – (Wet Lay Method)

Select a starter wall. It is recommended to start the installation along an exterior wall; it's more likely to be straight and square with the room. Measure out from the wall the width of two planks and mark each end of the room. Measure out from the wall the width of two planks and mark each end of the room and snap your chalk line.

Step 2

Spread the adhesive from the chalk line to the starter wall using the recommended trowel. It is important to use the correct trowel at a 45° angle to get the proper spread of adhesive applied to the sub-floor, which will produce a proper and permanent bond. Improper bonding can cause loose or hollow spots.

Note: Change the trowel every 2000 to 3000 square feet due to wear down of the notches. This assures you always get the proper spread of adhesive.

Step 3

Install the first row of starter planks with the tongue facing the starter wall and secure into position. Alignment is critical and can be achieved by securing a straight edge along the chalk line (2'x4's work well), or by Sprig/pin nails (concrete sub-floor). This prevents slippage of the planks that can cause misalignment.

Note: The planks along the wall may have to be cut to fit since most walls are not straight, and leaving an expansion space is not necessary with these engineered planks and strips.

Step 4

Once the starter rows are secure spread 2-1/2 to 3 feet of adhesive the length of the room. (Never lay more adhesive than can be covered in the time designated by the adhesive manufacturer.)

Place the tongue into the groove of plank and press firmly into adhesive. Never slide planks or strips through adhesive. Use a tapping block to fit planks snug together at side and butt-ends. Test for proper bond by occasionally lifting a board and board and looking for good coverage (90%), then replace it into the adhesive.

Clean any adhesive off the surface before it cures using the manufacturer's Adhesive Towels.

Use 3M Blue Mask Tape to hold planks securely in place as you are installing and continue the process through out the installation. Remove tape when the installation is completed. Tape left on the floor too long may damage the finish when removed. Use caution when using a rubber mallet to butt material together, it can burn the finish and cause marring.

Note: Never work on top of the flooring when installing with the wet lay method.

Step 1 – (Dry Lay Method)

Start by selecting your starter wall and measure out from the wall the width of 8 - 10 boards plus ½ inch (expansion space). This will allow adequate working space. Snap chalk line.

Step 2

Apply adhesive from the chalk line out 2½' – 3'. Allow adhesive to flash as per the instructions affixed to the adhesive container. The humidity chart will aid in allowing the appropriate flash time based on the temperature and humidity.

Secure your starter rows with a straight edge (2'x4's). Install planks and secure with 3M Blue Mask Tape as you continue throughout your installation. If you must work on top of the newly laid flooring use a kneeling board.

Once the remainder of the floor has been installed go back to the beginning and remove straightedges and spread adhesive on the remainder of the open subfloor, allow flashing for the appropriate time and lay flooring as instructed. Remember that the planks closest to the wall may need cutting to fit, due to irregularities along the wall.

Clean Up

Use Flooring Adhesive Towels to clean as you go, along with a wood flooring cleaner. Both are easy and convenient to use. Adhesive that has cured on the surface of the flooring can be difficult to remove and will require the use of a Urethane Remover. This product has been recommended by the adhesive manufacturer and is safe for the finish of your pre-finished wood floor. Once the floor is completed, clean the flooring with a quality wood floor cleaner. **WARNING If urethane adhesive is allowed to dry on the surface of the floor it may permanently etch the surface.**

Light foot traffic is allowed after 12 hours but wait 24 hours after installation to remove the 3M blue masking tape. Once the tape is removed clean any adhesive residue left from the tape with Adhesive Towels.

FLOATING INSTALLATIONS

PLAN YOUR INSTALLATION

Floating floors require freedom to experience and contraction without binding or rubbing on vertical surfaces. Bedrooms and halls should be isolated from other rooms by using T-Mould transitions. Be sure to follow expansion guidelines, to undercut doorframes and leave expansion at cabinets and fireplaces. Do not exceed 30 foot spans without an expansion joint and transition molding.

STEP 1 Underlayment

1. Be sure to follow subfloor recommendations listed earlier. High or low spots can cause deflection may damage the flooring tongue and groove.
2. If the sub-floor is concrete install a 6-mil poly vapor barrier. All joints should be lapped 6" and taped with a moisture resistant tape.
3. Install the Underlayment parallel to the starting wall and in the same direction that the Flooring will be installed. Do not overlap joints. Underlayment should be cut flush with the walls. Tape all joints using

a water resistant tape such as packing tape or duct tape; allow no wrinkles. Tape the starting row to the floor to prevent movement.

STEP 2 WORKING LINE

1. Place a mark approximately 18" from the corners of the starting walls add the width of flooring +1/2" to allow for expansion and the tongue. Strike a chalk line through these two points the length of the room to the end walls on top of the underlayment. This line is the STARTING LINE.

NOTE: lack of expansion may cause squeaking or sections to pull apart during dry seasons due to contact with vertical surfaces.

2. Measure the distance between the starting line and the wall the full length of the starting wall. If the wall is badly out of line (crooked) it may be necessary to rip boards to follow the irregularity in the wall. Option: Using no adhesive install a strip on the inside edge (closest to the wall) of the chalk line. This row may be of any straight wood material. Make certain each of the Strips is in perfect alignment with the starting line using wedges to hold the flooring in place on the ENDS.

STEP 3 INSTALLATION OF BOARDS

1. Lay the boards out the length of the room. Make certain that the last and final board in the row will be at least 12" between the board end and the wall. If the board in the row will need to be cut less than 12" in length to complete the row adjust the board selection accordingly.

2. Begin installation from the RIGHT corner with the tongue facing you and the long GROOVE facing the starting wall or strip row. The short end GROOVE should be facing the end wall. Align the first board with the STARTING LINE.

3. Select the second board. Place a 1/8" continuous bead of glue in the inside bottom edge of the END groove. DO NOT apply glue to the long side groove at this time Carefully interlock the joint with the first board always maintaining alignment with the STARTING LINE. Remove any excess glue from the surface with a towel dampened in warm soapy water. Use 3M blue tape (not masking tape) to temporarily hold the end joints together. Use wedges or waste material in the expansion gap on the side and end walls (ends only if sacrificial board was used) to maintain alignment with the STARTING LINE. Continue installing in this manner until the first row is complete.

4. Measure and cut to length the final board in the row allowing 1/2" expansion between the end of the board and the end wall. Apply glue in the groove and install. Set the waste end aside for later use.

5. Select a new set of materials. If the cut-off waste from the first row was 18" or longer it can be used as the first board in the row. Maintain 6" spacing between the end joints of all rows.

6. Place a continuous bead of glue along the inside bottom edge of the END groove and the same location on the side groove. Carefully align the tongue and grooves together and tighten the plank until all joints are snug. Remove any excess glue as before and temporarily hold the joints together using blue tape. Cut and install the final board in the row.

7. Continue in this manner until the first four rows are completed. This four-row area is the base for the balance of the floor installation. Perfect alignment is essential, as any variance will worsen as the flooring proceeds further in to the room. Carefully inspect for proper alignment before the glue sets. Adjust as necessary.

8. Continue with the installation as above. Continue using tape to hold the joints together and wedges to hold the end joints in place. DO NOT walk on the finished floor during installation, as this will break the uncured glue joint. DO NOT roll the floor for the same reason.

9. Finish the final row by cutting the boards to fit, always allowing for expansion space.
10. If a Starting strip was used remove it and replace with a row of material that is properly edge glued as above.

STEP 4 COMPLETING THE JOB

1. Remove all tape from the floor starting from the area in which the wood was first applied. Inspect for gaps, chips and glue residue while removing the tape. Remove all glue residue, touch up chipped areas and fill with the appropriate filler as necessary.

Use a complimentary coloured filler such as Color Rite.

2. Install/reinstall all mouldings and clean the floor with the appropriate cleaner.⁴

3. First use of the floor varies from one glue manufacturer to another. Generally the floor can have light foot traffic after the glue has cured for 8-24 hours with furniture being LIFTED into place after 24 hours.

Note: Avoid walking on the floor during installation as traffic may loosen or break glue joints.

NAIL DOWN INSTALLATIONS

Note: It is a requirement that all products with a board width of 5 inches and wider have nails supplemented by the use of adhesive. Failure to supplement nail use with adhesive may result in board movement or noises to emanate from moving boards which will not be considered a manufacturing defect. These adhesives may be trowelled on using methods and trowel recommended by the manufacturer or laid down in a bead if using sausage or cartridge adhesive. If trowelling and nailing the floor you should spread rows of adhesive that are perpendicular to the board direction and no more than 12 inches apart. If beads of adhesive are used they should be applied to the subfloor in a serpentine fashion along the entire length of the boards. A flexible wood flooring adhesive such as Bostik should be used. Care must be taken to remove excess adhesive from the floor surface immediately or permanent damage may result.

These Engineered hardwood floors may be installed over wood sub-floors using cleats.

When installing these engineered wood planks or strips by nailing, it is necessary to use the proper type of flooring or nailer made for these Engineered Wood Floors.

Important Notice: Glue-assist Nail Down Installation

Wide plank is becoming more and more popular in these years. While these products can be installed with nail-down installation, it is not the recommended method. If you are installing these products with the nail-down installation, follow the recommendations for fastener selection and nailing schedule, glue assist with elastomeric adhesive and glue butt joints with non-crystallizing floating floor adhesive. Failure to follow the instructions may result in squeaking and/or other objectionable floor noise. Such noise is not the result of a product defect and is not covered by the product warranty. Some noise can be expected on all nail down installations.

* To avoid top nailing, some installers like to full spread glue down the first/or last rows while doing nail-down installation. It is not recommended by FloorTek. Any use of full spread glue down on first/or last rows within a nail-down installation will automatically void the product warranty. *

Recommended Fasteners

1-1/2" or 1-3/4", 18 gauge wood flooring cleats are recommended for nail down installations. Numerous nailer manufacturers, including Primatex and Powernail manufacture tools suitable for these installations. Incorrect tool adjustment or cleat size may cause displaced wood to create blemishes on the floor surface. Cleats of insufficient gauge and/or length may not secure the flooring to the subfloor adequately.

Caution: We have tested the above-recommended fasteners. Other staplers, staples, nailers and cleats may work as well however, since they are not currently recommended if their use damages or fails to properly secure the flooring the responsibility is the installers and not the manufacturer.

You must nail 1"-2" from the ends and every 4" along the edges. This will help insure a satisfactory installation. It is best to set the compressor PSI at 80-85 lbs. to keep the fasteners from going through or breaking the tongues. Improper fastening techniques can cause squeaks in the floor.

Adjustments may be necessary to provide adequate penetration of the fastener into the nail bed. You want it flush in the nail pocket. Use a scrap piece of flooring material to set tools properly before installation.

If installing over a crawl space or wet basement, it is advisable to use the full glue down method, this will help to retard moisture from below. Keep in mind there is no complete moisture barrier system for nail down installations.

Beginning installation

Place the planks with the tongue facing away from the wall and along your chalk line. Use brads or small finishing nails to secure the first starter row along the wall edge 1"-2" from the ends and every 4" along the side. Counter sink the nails and fill with a filler that blends with the flooring installed. Place the nails in a dark grain spot in the board. The base or shoe molding will cover the nails when installed after completion of the installation.

Blind nail at a 45 degree angle through the tongues. It will be easier IF YOU PRE-DRILL THE HOLES IN THE TONGUES. Nail 1"-2" from the ends and every 4" along the sides. It will be necessary to blind nail the next 2 rows. A brad nailer with 1"-3/8" brads can also be used to blind nail and no pre-drilling is needed. Continue the installation using an engineered wood flooring nailer, using nails recommended by the manufacturer. Nail the flooring 1"-2" from the ends and every 4" along the edge tongues.

Complete the Installation

-Clean floor with the recommended wood flooring cleaner such as Bona, Woodwise or Woodpecker brands.

-Install or re-install any transition pieces that may be needed, such as Reducer Strips, T-moldings, or Thresholds. The products are available pre-finished to blend with your flooring.

-Install or re-install all base and/or quarter round moldings. Nail moldings into the wall, Not the floor. Inspect the floor, filling all minor gaps with the appropriate blended filler.

-Leave warranty and floor care information with the owner.

Advise them of the product name and code number of the flooring they purchased.

-To prevent surface damage avoid rolling heavy furniture and appliances on the floor. Use plywood, hardboard or appliance lifts if necessary. Use protective castors/castor cups or felt pads on the legs of furniture to prevent damage to the flooring.

MAINTENANCE

These Engineered Hardwood Floors are very easily maintained. No wax, no mess. Simply use a quality wood floor cleaner and a specialty terry cloth flooring mop available from flooring retailers.

STEP ONE: Vacuum or sweep your floor to remove any particles that could scratch your floor.

Warning: Vacuums with a beater bar or power rotary brush head can damage a wood floor and never should be used.

STEP TWO: Apply the cleaner directly to the terry cloth flooring mop, not to the floor!

STEP THREE: Use a back and forth motion with the mop.

When the terry cloth cover becomes soiled, simply replace it with a clean one. Cleaning the floor with a soiled cover could cause streaking. The covers are re-usable so simply throw the cover in the wash and dry it as you would any towel. Avoid using fabric softener as the absorbency will be reduced.

MANUFACTURER OBLIGATIONS

The responsibility of the mill is limited to repairing, refinishing or replacing defective products, to their discretion.

No distributor, retailer, installer, agent, salesperson or representative is authorized to modify or extend the conditions or duration of this warranty. Other compensation, like removal, installation, incidentals or any other expenses, are not covered by this warranty. (Note: Exclusions or limitations may not apply if they are against state or provincial law)

EXCLUSIONS

This warranty shall exclude the damages resulting from following:

Reduction or dulling of the floor's shine or gloss, which is not considered surface wear.

Shrinking and/or expansion of the floor, which is due to changes in relative humidity.

As wood is a product of nature, minor quality variations up to 5% of total square footage purchased are not covered by this warranty (as per industry standard) Incorrect handling or storage.

Cracking or/and peeling due to excessive surface pressure. Neglect of maintenance, prevention or protection of said product. Use of the product for other means than residential purposes. Abnormal wear or abuse (i.e. indentations caused by spike heels, furniture or other sharp or abrasive objects, etc.)

Excessive moisture resulting from saturation with water or other liquid.

Insect infestation, blemishes or scratches caused by pets.

Extreme weather conditions and natural disasters.

Improper installation or acclimatization.

Any unauthorized repairs, refinishing, or removal of wood strip flooring.

OWNER OBLIGATIONS

HUMIDITY & Temperature

Ensure that environmental conditions are maintained with a temperature range of 65-85 ° F (18-30 ° C) and humidity at 35-55% at all times. Problems resulting from exposure to improper environmental conditions are not covered by the product warranty.

FINAL PRODUCT INSPECTION

The installer and/or the owner assume final inspection and acceptance for the product quality prior the installation.

PROTECTION

Water, dust, sand and salt are worst enemies of wood. The combined effect of water and sand, salt or dust is devastating to flooring, so it is important to place floor mats at entrances.

Install felt pads to the legs of furniture and chairs to avoid scratching flooring when objects are moved.

LIQUIDS AND SPILLS

Never use a dampened mop or wet cloth to clean your hardwood floor. Water can seriously damage any kind of wood. All liquids and spills should be wiped of as soon as possible in order to prevent any possible damage.

SUNLIGHT

Normal exposure to sunlight will cause colour changes in any hardwood floor. Area rugs, which block out light, should therefore be shifted regularly. The use of window coverings to shade the floor will minimize changes due to sunlight.

CARE PRODUCTS

For best results, we recommend the use of specially formulated wood care and maintenance products.

Also never use wax, household detergents or oil-based soap on the floor. These products may damage the finish and leave a greasy film, making the floor slippery and difficult to maintain afterwards.

PROCEDURES

Should you need to file a claim under this warranty, here is the procedure to follow.

Contact you authorized dealer and/or distributor where the floor was purchased.

You must have a copy of your original receipt and be the original owner of the floor.

The surface wear must be readily visible. At least 10% of the floor surface must be affected.

The factory keeps the right to inspect the floor and remove samples for technical analysis within 30days from receipt of a written claim.