Wood Floor Installation & Care Guidelines

*by **iNetFlooring***

Recommended Installation by Line:

Engineered Collection: 5" plank allowed for GLUE, NAIL or FLOAT. Can be installed above, on or below grade.

Engineered Collection: 3 ¼", 3 5/8" or 4" plank allowed for GLUE or NAIL. Can be installed above, on or below grade.

Solid Collection: NAIL ONLY. Can be installed above or on grade.

I. Sub-floors

Sub-floor must be flat, meeting a minimum of 3/16" within 10' or 1/8" in 6'.

Concrete sub-floors – Grind high spots or use a cement based leveling material (minimum Compressive strength 3000 psi) to fill all low spots. Follow the leveling compound manufacturer's instruction. Leveling compounds must be allowed to thoroughly cure and dry prior to installation of wood flooring.

Wood sub-floors – For staple down application use layers of 15 lb. felt. wooden shims to fill low spots. Staples must be able to penetrate for holding power.

Recommended Sub-floor Surfaces

Concrete sub-floors – concrete slabs should be of high compressive strength and constructed to prevent groundwater from permeating the concrete. Engineered hardwood flooring can be installed on, above, or below-grade. In addition, it can be installed over above-ground, suspended concrete floors. The suspended concrete must be a minimum of 1 ½" thick and must be structurally sound. The exception to this is lightweight concrete (which usually contains high amounts of gypsum) having a density of 100 pounds or less per cubic foot. Test for lightweight concrete by using a nail to scratch the surface of the concrete. If the concrete crumbles or turns to powder, it is not sound and you should **NOT** install the hardwood flooring.

Wood Sub-Floors – Preferred Sub-flooring ¾" (23/32", 18.3mm) CDX grade plywood sub-floor / underlayment (Exposure 1), 4'x8' sheets or OSB sub-floor / underlayment grade, PS2 rated, sealed side down, with joist spacing of 19.2" (475) on center or less.

Minimum Sub-flooring 5/8" (19/32", 15.1mm) CDX grade plywood sub-floor / underlayment (Exposure 1), 4'x8' sheets, maximum 16" on center joist construction. Follow panel manufacturer's recommendations for spacing and fastening. Typical panel spacing and fastening for joist systems, 1/8" (3.2mm) around perimeter and fastened every 6" (150mm) on bearing edges and every 12"(300mm) along intermediate supports. Installation of flooring should not be made over joists spacing greater then 19.2 on center or parallel to the joists unless the sub-floor has been properly strengthened, applying a second layer of underlayment may be necessary to bring the overall sub-floor thickness to 1 1/8".

- Test the moisture content of the wood sub-floor and wood flooring with a pin type moisture meter. Wood sub-floor must not exceed 13% and the wood flooring should be within 4% of the wood sub-floor.
-For existing wood floors, install the new flooring at right angles to the existing flooring.
-Do not glue, staple or nail down hardwood flooring over particle board.
-Do not install over existing glue down hardwood floors.

II. Glue Down Installation

Note: ***For materials 4" wide or less, use a 3/16" x 3/16" x 3/16" square notch trowel. For materials wider than 4" use a ¼" x ¼" x ¼" square notch or 3/16" x ¼" x ½" V-notch trowel. <u>Urethane adhesive required.</u>***

Getting Started

1. Establish a starting point. An outside wall is best: It is most likely to be straight and square with the room. Measure out from this wall, at each end, the width of two planks including the tongue plus the space needed for expansion.
2. Snap a chalk line from these points, parallel to that wall.
3. Prior to installing the flooring, fasten a straight edge inside the chalk line as a guide and to prevent the row of planks from shifting during installation. When gluing to a slab the straight edge may have to be screwed into the concrete. The straightedge could be a straight piece of lumber or piece of flooring. Alternatively, the first row can be face-nailed with finishing nails into the wood sub-floor or sprig nailed into a concrete sub-floor.
4. Using the proper trowel, hold the trowel at a 45* angle to ensure proper spread rate of

adhesive. Apply pressure to allow the trowel to leave ridges of adhesive on the substrate with little adhesive left between the ridges. This will help to achieve the proper spread rate of the adhesive. Temperature and airflow across the adhesive can have an affect on the open time of the adhesive.

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

NOTE: ***Accurate alignment is important. Uneven starter rows can cause sides and ends to gap in proceeding rows of flooring. With the starter rows complete, you can begin the next row. Use blue tape to hold the boards together tight to prevent movement or gapping.***

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

7. Continue to install planks and push them into place. Place the tongue of the board into the grooves of installed boards and press into the adhesive. As you continue working across the floor, try to maintain a six-inch minimum space between end joints. Install different lengths at random to avoid a patterned appearance.

Note: ***Never strike a rubber mallet or hammer directly on the flooring to engage the tongue and groove. This practice can damage the flooring and/or the finish. Use a tapping block if necessary.***

8. Remove the adhesive from the surface of the installed flooring as you work – this will help to save time. Mineral spirits will remove most adhesives. Frequently change trowels to avoid leaving a haze on the flooring surface.

9. As you approach the end wall it may be necessary to rip the width of the last row – be sure to allow for the expansion space along the end wall. Once the final cuts are made, set planks into place.

10. After the floor is completed, remove the straight edge and glue down the first two boards.

11. Foot traffic should be restricted for a minimum of 6-8 hours and wait 24 hours before permitting moving of furniture onto the floor.

12. Carefully remove the blue tape 24 hours after installation is completed. Do not wait more than 24 hours to remove tape since it could leave residue on the floor.

13. Clean any wet adhesive from the flooring with a lightly dampened clean cloth or sponge. If the adhesive has dried, use mineral spirits on a clean cloth.

III. Nail or Staple Down Installation

Note: ***our flooring is not warranted against squeaking, popping or crackling when using staple down or nail down installation methods unless directly related to the***

manufacturing process. Some squeaking, popping or crackling is normal and possible when using staple-down or nail-down installation methods. These symptoms may be aggravated in drier areas or during dry conditions.
Before you being using the following instructions, please refer to the acceptable jobsite conditions and job preparation information above.

Set Up and Use of Pneumatic Staples and Nailers

Minor occasional noises within the flooring are inherent to all staple / nail-down installations and can change as environmental changes occur. This is not a anufacturing defect and is therefore not covered under our warranties (see warranty brochure for complete warranty coverage). You can help reduce squeaking popping, and crackling by being sure that the sub-floor is structurally sound, does not have any loose decking or joists, and is swept clean prior to installation. You should also be sure that your stapler or nailer is setting the fastener properly, not damaging the planks, and that you are using the correct nailing schedule. When used improperly, staples or cleats can damage wood flooring. If the tool is not adjusted properly the staples / cleats may not be positioned at the proper angle and cause blistering, pecking, squeaking or crackling of the floor. Some models may require the use of an adapter to adjust for proper thickness. Test the tool on a piece of scrap material first – set the set the stapler / nailer flush on the tongue side of the plank and install a staple / cleat. Should the staple / cleat penetrate too deeply reduce the air pressure; if the staple / cleat is not deep enough then increase the air pressure using an in-line regulator. The crown of the staple / cleat should sit flush within the nail pocket to prevent damage to the flooring and to reduce squeaking. The flooring manufacturer is not responsible for damage caused by the mechanical fasteners.

Note: ***For ½" thick planks the minimum length staple / cleat is 1 ¼".***
For ¾" thick planks the minimum length staple / cleat is 1 ½".

Getting Started

1. After the sub-floor has been properly cleaned and prepared cover the sub-floor with 15lb. asphalt felt paper. This material will help to keep the floor clean and help the retard moisture from below. If the sub-floor is nailed to a concrete sub-floor a proper moisture barrier is required.
2. Establish a starting point. An outside wall is best: it's most likely to be straight and square with the room. Measure out from this wall, at each end, the overall width of the plank including the tongue and the space needed for expansion.
3. Snap a chalk line from these points, parallel to that wall.

4. Install the first row of starter planks along the chalk line / straightedge and secure into position with the tongue facing away from the starter wall (toward you). This first row or two will have to be face-nailed with 1 ¼" or 1 ½" finish nails.
5. Blind nail at a 45* angle through the tongue 2" from the endjoints and every 8" in between along the length of the starter boards. Depending on the width of the flooring it may be necessary to do this for the first few rows prior to using a pneumatic stapler / nailer.

   NOTE: ***Accurate alignment is important. Uneven starter rows can cause sides and ends to gap in proceeding rows of flooring. With the starter rows complete, you can begin the next row. Use blue tape to hold the boards together tight to prevent movement or gapping.***
6. Continue to install the flooring making sure to mail / staple 2" from the ends and every 8" thereafter. Make certain the tool is adjusted properly to ensure that the fastener is at the proper angle and is flush within the nail pocket. As you continue working across the floor try to maintain a six-inch minimum space between end joints. Randomly install different lengths to avoid a patterned appearance.
7. If needed use a tapping block to help engage the boards together until the tongue-and-groove is flush and tight and no gaps are present between adjacent planks.
8. As you approach the end wall it may be necessary to rip the width of the last row – be sure to allow for the expansion along the end wall. Once the final cuts are made set planks into place.
9. The last few rows will need to be fastened by hand. To fasten the final planks into place, you must either blind nail or face-nail through the surface on the final planks. Countersink nails and fill with appropriate colored wood filler.

IV. Floating Installation

See preparing for installation and getting started

Allow for ½" or greater expansion at all areas. NEVER net fit, pin down or nail anything into a floating floor as it prevents the normal expansion and contraction the floor has to have. Always leave at least a ½" expansion around walls and vertical objects. Use a premium wood glue (Titebond II is recommend) on both side and end groove per adhesive recommendations and apply to the top side of the groove. A minimum of 6-mil poly sheet and overlapped 6 inches and taped is required for moisture barrier. Underlayment of foam cushion is required too.

NOTE*:* ***While the floating method offers some advantages, there are some things of which you should be aware: (1) The floor may have a hollow sound when walking on it. (2) The wood rests on the sub-floor with its own weight, which may cause the floor to have slight vertical movement. (3) A damaged plank cannot be replaced as simply as in a staple-down, nail-down, or glue-down installation.***

V. Maintenance

- Install protector pads on bottom of all furniture
- Place rugs at all points of entrance to capture abrasives and moisture. Shake out rugs regularly.
- Sweep or vacuum regularly since build-up grit can damage the surface of the wood. The vacuum head must be a brush or felt type. Be certain the wheels of the vacuum are clean and do not damage the finish. Do not use a vacuum with a beater bar head.
- Do not use household dust treatments to clean the wood floor as they will contaminate the finish, thus making it harder to refinish the floor later.
- Never wet-mop, damp-mop, or flood the floor with water or other non-approved wood floor cleaners. This can severely damage the flooring and will void the warranties. We recommend using of Dry Swiffer® by Proctor & Gamble, or other similar products.
- We recommend using the following Wood floor-care and maintenance products: BonaX Swedish Formula Hardwood Flooring Cleaner and Basic Coating Squeaky Hardwood Floor Cleaner.
- Wipe up spills immediately with a dampened cloth and follow up with recommended cleaner.
- Remove stains with a cloth dampened with recommended cleaner. DO NOT use oil soaps, liquid or paste wax products or other household cleaners that contain lemon oil, tung oil, silicon or ammonia, since our warranties do not cover damages caused by non-recommended products. Use of these and other such products will harm the long-term performance of your floor and may also affect its recoat ability.
- Keep pets' nails trimmed, and paws clean and free of dirt, gravel, grease, oil, and stains.
- Use a dolly and protective sheets of plywood when moving heavy objects, furniture, or appliances.
- Remove shoes with spiked or damaged heels before walking on floor. Use area rugs in high traffic areas and pivot points (e.g., stair landings, room entries, etc.), especially if you have a large family or indoor pets.
- Exposure to the sun and its UV rays accelerates the oxidation and aging of wood and

fabrics. This causes the stain and/or wood to fade and/or to change color. We recommend that you rearrange rugs and furniture periodically so the floor ages evenly. Our warranties do not cover damage from the sun and its UV rays.

- We recommend consumers use floor care kits and cleaners made by Bona Kemi, whose hardwood floor cleaning products are available online at www.floorcleaners.net.