



NAIL DOWN INSTALLATION GUIDE

A NAIL DOWN INSTALLATION GUIDE FOR SUPERIOR
SOLID, ENHANCED AND ENGINEERED FLOORS.



STORAGE & HANDLING

Your hardwood floor is a natural organic product which is affected by the humidity levels in the air around it. Both before and after installation it will absorb or release moisture. Wood is a natural material that seeks to be in balance with its surroundings. Hardwood destined for use in wood floors is carefully kiln-dried for that purpose. Typically, hardwood will expand during the summer months and shrink in the winter. Acceptable humidity levels (**Chart 1**) should be maintained at all times in the rooms where your floor is installed. You will receive the wood for your floor in specially designed cartons that have been stored in a controlled environment. These conditions must be maintained throughout shipping, installation, and thereafter.

The following considerations are important, and failure to follow them will void your warranty.

ACCLIMATION

Herwynen Sawmill Ltd. will not warranty Superior or Enhanced Flooring products that aren't stored and installed within the relative humidity range specified in Chart 1. Superior and Enhanced Flooring products cannot be stored on the construction site or acclimatized before install, doing so will void your warranty.

SUBFLOOR MOISTURE CONTENT

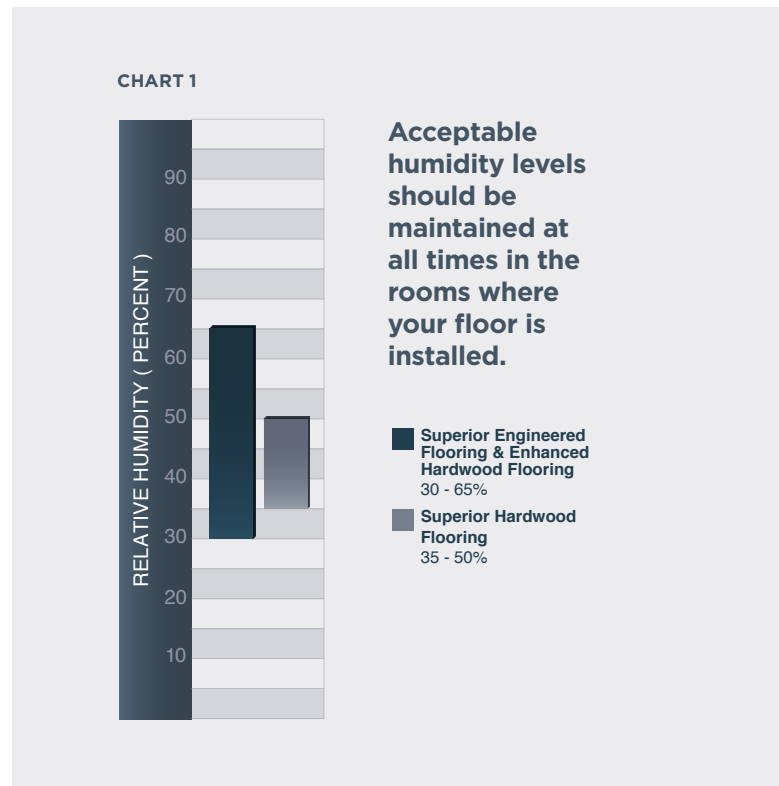
Measure the moisture content of the sub floor and the hardwood to be installed using a moisture meter. The moisture reading of the sub floor must be between 6% and 12% maximum. Hardwood strips must be under 2% maximum difference when compared to the sub floor. If the moisture content of the sub-floor is too low or high, postpone installation. Increase ventilation or use a humidifier or dehumidifier to adjust moisture levels before installation.

SUBFLOOR DESIGN

For wood sub-floors, hardwood flooring must be installed on plywood or OSB over joists. If the existing sub floor consists of particle board, then it will be necessary to overlay it with at least 5/8" plywood before installation. Be sure hardwood flooring is installed over industry standard sub-floors and underlayment, which as a minimum standard, must be 5/8" A.P.A. approved C.S.P/D.F.P. plywood C.O.F.I stamped, 23/32" or thicker O.S.B. underlay grade PS2-92, or 5/8" tongue and groove boards.

RELATIVE HUMIDITY

Drywall, plaster and concrete must be completely dry and the heating system fully operational with the temperature maintained at 22°C for one to two weeks before the flooring is delivered to the site. All concrete in the structure must have cured for at least 30 days.



GENERAL INSTALLATION GUIDELINES

PREPARATION INSTRUCTIONS

- Remove baseboards, quarter rounds and then screw down subfloors securely to avoid squeaking if necessary. The subfloor must be clean, dry, smooth and flat.
- Undercut any door-jamb on the bottom of the door frames if needed to permit a strip to be inserted under them.
- Clean the bottom of any footwear worn during installation.
- Use **Chart 2** to determine which fasteners are applicable to the flooring you are installing. Note that Superior Flooring recommends the use of cleats on our solid hardwood. Dimpling (tiny bumps at the edge of the strip) is caused using a staple gun and is not considered a manufacturing defect.

- Installation should be done under natural light conditions.
- Adequate expansion space must be envisioned for the installation of all mouldings. Different installation methods require different expansions space.
- If heavy tools or other objects are dropped on the floor, they will damage it.

POST INSTALLATION GUIDELINES

- Never attach mouldings to the hardwood flooring (**see Image 1 on page 4**). Take care when installing the moulding to ensure that it will not inhibit the floor's ability to move. Quarter round and baseboards are to be nailed only to the wall.

GENERAL GUIDELINES

- Your starting location should be the longest and straightest wall within the room.
- Hardwood flooring must be installed across the joists at a 90-degree or 45-degree angle for support.

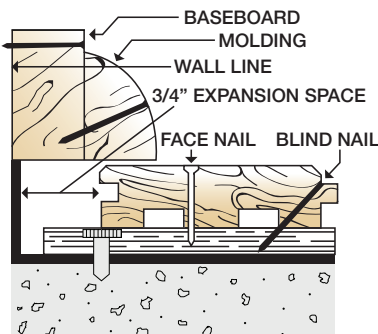
CHART 2

| PRODUCT | FASTENER | DISTANCE BETWEEN FASTENERS | DISTANCE FROM ENDS | MINIMUM LENGTHS |
|--|--|----------------------------|--------------------|-----------------|
| Superior Hardwood Flooring 3/4" - 2 1/4" | 16 ga L type cleat (Primatech P250AL) | 6" to 8" | 1" to 3" | 1 3/4" |
| Superior Hardwood Flooring 3/4" - 3" or wider | 16 ga L type cleat (Primatech P250AL) | 6" to 8" | 1" to 3" | 1 3/4" |
| Enhanced Hardwood Flooring 3/4" | 18 ga L type cleat (Primatech Q550) or 15.5 ga 1/2" staple (Primatech P250AS) | 6" to 8" | 1" to 3" | 1 3/4" |
| Superior Engineered Flooring 3/4" | 16 ga L type cleat (Primatech P250AL) or 15.5 ga 1/2" staple (Primatech P250AS) | 6" to 8" | 1" to 3" | 1 3/4" |
| Superior Engineered Flooring 5/8" | 16 ga L type cleat (Primatech P250AL), 18 ga L type cleat (Primatech Q550AL), 18 ga 1/4" crown staples (Primatech Q550AC) or 15.5 ga 1/2" staples (Primatech P250A) | 6" to 8" | 1" to 3" | 1 3/4" |
| Superior Engineered Flooring 1/2" | 18 ga 1/4" crown staple (Primatech Q180) or 18 ga L type cleat (Primatech Q550) | 4" to 5" | 1" to 3" | 1 1/2" |

INSTALLATION INSTRUCTIONS

1. Roll out the vapour retarder paper the length of the room. Cut it so it touches the outside walls, and overlap the inside edges 3" to 5" to completely cover the floor space of the room. Vapour retarder paper is the NFWA recommendation as an underlayment for hardwood flooring. We recommend Aquabar "B", Silicone Vapor Shield, or any product with a vapour permeance (perm rating) of greater than or equal to .7 and less than or equal to 10 when tested in accordance with ASTM E-96 method A.
2. At the starting location, measure out the width of a hardwood strip plus 3/4" (for expansion). Mark this with a chalk line against which you will place the tongue of your starter strip. The groove edge of the first strip is laid 3/4" from the starting wall to leave room for expansion (see Image 1). The 3/4" expansion will be needed around the perimeter of the room.

IMAGE 1



3. Lay out the hardwood strips on the floor as they will be installed, picking the straightest boards for the first two rows.
4. Secure the first row to the floor. For this you should face nail using #8 finishing nails or brad nails 1 1/2" long. **NOTE:** For face nailing, drill pilot holes at least 1" from the grooved side and 3" from the ends of the strip. The holes should be spaced at between 10" and 12" apart and the nails driven using a claw hammer and a nail punch with the holes eventually filled using matching the wood putty.
5. For blind nailing the second and third rows of strips, holes will be drilled into the tongue at a 45 degree angle at least 3" from both ends and spaced as above (see Image 2). Once again, the nails are driven using a claw hammer and a nail punch.

IMAGE 2



6. Use a strip which is at least 6" longer than required in order to finish off the first row. The remainder which was trimmed off the end will be used to start the next row. Make sure that the end joints do not line up with end joints of adjacent strips (see Image 3). Once this piece is cut, position the two pieces into place and secure them as above. Then position the strips needed for the second row being careful that the end joints are at least 6" apart from those in the first row. Fasten as per the description above for face nailing.
7. The next step is to rack your floor. Loose-lay the boards, starting about 3" away from the secured row. Try to distribute the long and short pieces while insuring that no end joints are within 6" of each other to avoid getting a cluster of end joints in one area (see Image 3). Boards should also be arranged based on the natural colour variations of the species to create a random appearance. Install the rest of the floor using your hardwood flooring nailer.

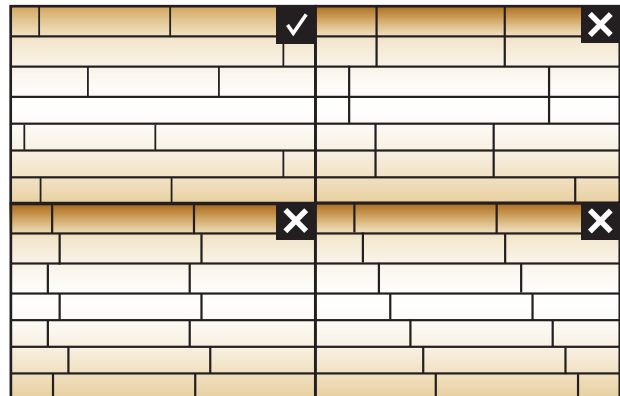


IMAGE 3

8. The last two rows against the finishing wall will be face nailed (see Image 1). Don't forget to fill all nail holes with matching wood filler. Also, note that holes are less visible in the darker grain of the wood. Use of stain, wax, filler or putty for defect correction is accepted as normal procedure.
9. Baseboards and quarter-rounds should be nailed to the wall only and never through the hardwood strips or into the sub floor (see Image 1). When you're done, clean the floor as is described in the Care & Maintenance instructions.



**SUPERIOR HARDWOOD FLOORING
BY HERWYNEN SAWMILL**

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