



JOB SITE CONDITIONS

Layer 12 Hardwoods recommends only using a specialized professional installer to install your wood flooring, to ensure optimum performance and satisfaction from your flooring. Layer 12 installation guidelines are intended to offer general guidance as it relates to Layer 12 Hardwood Floors and are not a replacement for a professional. For best results, we suggest using a National Wood Flooring Association-certified professional installer. Layer 12 Hardwoods Floors must be installed according to the National Wood Flooring Association's (NWFA) installation guidelines for the warranty to be valid. The most current publication of the NWFA guidelines is available to all NWFA members and can be found at www.nwfa.org. You can also search your area for an active NWFA Certified Professional Installer on NWFA's website.

****CAUTION** DO NOT APPLY ANY TAPE OR ADHESIVE TO WOOD SURFACE****

Note: it is the installer's responsibility to check the moisture of the subfloor and other conditions in the house before laying the floor. Owner/Installer should carefully inspect material prior to installation. Wood is a natural product and as such will contain variations in grain, color and individual characteristics from board to board. Materials installed with visible defects are not covered by warranty. Any unacceptable material should not be installed. Rejection of material must be done on the full shipment of product, not box-by-box or piece-by-piece. Our flooring is manufactured within accepted industry standards, which allow grading deficiencies not to exceed 5%. It is recommended to add 5% - 10% to order quantities to allow for grading deficiencies and installation waste.

**As outlined by the National Wood Flooring Association* Wood flooring is one of the last jobs of any construction project. The grade level should be noted so that the correct flooring can be specified for the job. Prior to delivery of the wood flooring, a site evaluation should be done.

- The building should be completely enclosed.
- All outside doors and windows must be in place and have latching mechanisms.
- The site should be at normal living conditions, whether it is under normal HVAC controls or temporary controls.
- The recommended temperature range should be between 60-80 degrees Fahrenheit, and the relative humidity should be between 35-55%.
- This range should be consistently maintained throughout the life of the flooring.
- Be sure the flooring will not be exposed to extremes of humidity, heat or moisture.
- All concrete, masonry, plastering, drywall texture, painting, and other wet work should be completed and thoroughly dry.
- The basement must be dry.
- Outside surface drainage should direct water away from the building.
- Crawl spaces must be dry.
- Crawl space must be a minimum of 18" from the ground to the underside of the joist.
- The crawl space earth (or thin "rat slab") must be covered 100% by a vapor retarder of 6 mil black polyethylene.



- Where the 6 mil black polyethylene ground covering is in place, the crawl space should have perimeter venting equal to a minimum of 1.5 square feet, per 100 square feet of crawl space.
- Crawl space vents should be properly located to foster cross ventilation.
- Unvented crawl spaces need ground covering of 6 mil black polyethylene, which must be overlapped 6 inches and be sealed or taped. Continuously operated mechanical exhaust and perimeter wall insulation or conditioned air supply and insulation must be provided.
- Subfloors (wood or concrete) should be checked by an appropriate method for establishing moisture content. For concrete slabs, moisture should not exceed 3lbs/1000sqft per 24 hours on a calcium chloride test and 75% on an RH test. 15. Plywood or wood subfloor should be tested with a pin or and should be within 4% for engineered flooring, and within 2% for solid flooring, of the wood flooring moisture content prior to installation. The plywood or wood subflooring should not exceed 13%.

Where the correct job site conditions are present, the flooring can be delivered and stored in the rooms in which it will be installed. Upon delivery check wood flooring and subfloor moisture content to establish a baseline for required acclimation. We recommend a minimum of 3-5 days. Proper moisture testing of wood flooring and subflooring materials will determine proper acclimation. Keeping the job site within the recommended temperature (60-80 degrees) and humidity (35-55%) will allow for proper acclimation. Deviation from the recommendations could cause damage to the flooring, which will not be covered by the warranty. It is the sole and joint responsibility of the installer and owner to conduct a quality inspection of all the flooring prior to installation. All pieces of flooring should be examined for quality of manufacture, finish, grade, and character/ color acceptance. If the product quality is deemed unacceptable, it should not be installed.

SUBFLOOR MOISTURE & ROOM CONDITIONS:

The subfloor must be flat, meeting a minimum of 3/16" within 10' or 1/8" in 6'. For concrete subfloors, 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. The flooring installer is responsible for a level and flat subfloor.

It is important to ensure that the moisture content of your concrete subfloor is not over 3.5% for cement screeds and anhydrite screeds max 0.5%-this should be tested with an appropriate moisture reader. If the cement subfloor is too high, either wait until it is dry or use a liquid DPM which will seal cement floors up to 5.9% moisture content.



Suitable timber subfloors include WBP/marine plywood or OSB grade 3. A wood subfloor should have maximum +/- 2% moisture content tolerance to that of the wood flooring being installed.

The optimum room climate for Layer 12 floors is around 35% to 55% humidity and temperature between 60-80 degrees for a minimum of 3 - 5 days prior to installation of the flooring as well as during the installation and thereafter. The installer should carry out these tests. Never bring flooring into a house which is not to the above conditions. Do not open packs until immediately prior to installation. You should use a hygrometer to check the humidity levels in your home regularly.

EXPANSION:

Always remember to leave an expansion gap of 1/2" at walls, pillars, stairs doorways, and around fixed object. For pipes drill a hole with a diameter about 1/2" larger than the pipe. It is recommended to place an expansion profile at all doorways. In the case of larger areas; it may be necessary to leave additional expansion through the floor as well as ground perimeter. It is the Installer's responsibility to calculate what additional expansion will be required.

INSPECTING THE BOARDS:

Prior to installation, Owner/Installer should carefully inspect material prior to installation. Wood is a natural product and as such will contain variations in grain, color and individual characteristics from board to board. Materials installed with visible defects are not covered by warranty. Any unacceptable material should not be installed. Rejection of material must be done on the full shipment of product, not box-by-box or piece-by-piece. Our flooring is manufactured within accepted industry standards, which allow grading deficiencies not to exceed 5%. It is recommended to add 5% - 10% to order quantities to allow for grading deficiencies and installation waste.

Once a board is installed, it is deemed to be acceptable. It is the responsibility of the installer and the end user to ensure that the floor is correct. No claims are accepted once the flooring has been installed.

The installer should blend planks from several packs to ensure a good balance of color and graining. It is important to place the very best boards in the main focal points of the rooms.

The following pages contain guidelines for the various installation methods and for installation over under floor heating (UFH). Please read the sections carefully which are applicable to your project.

GLUE DOWN INSTALLATION:

Before you begin using the following instructions, please refer to the Job Site Conditions information above. Concrete must have a minimum compression strength of 3,000 psi for direct glue applications. Use the appropriate trowel and spread rate according to the adhesive manufacturer's recommendations for the specific floor you are installing. The adhesive manufacturer is liable for proper adhesion of the flooring to the subfloor.

Glue down installation requires that a quality low water low solvent-based adhesive be used, using a trowel and spread rate as specified by the adhesive manufacture. See adhesive manufacturer's installations for specific rules and guidelines regarding installation procedures and acceptable subfloors. Any questions regarding the acceptability of a concrete slab or any other type of subfloor or subfloor coating for application of an adhesive, is the sole



responsibility of the adhesive manufacturer and the flooring contractor/installer. Make sure that the entire plank is in contact with the glue. It may be necessary to leave weights on the flooring boards which are pushing up to ensure full contact with the subfloor while the glue cures. This is normal practice and these weights can be removed once the glue has fully cured.

Never tap against the groove side or the end joints of the plank as doing so will damage the flooring finish and void the manufacturer warranty.

IMPORTANT! Adhesive/masking tape applied directly to hardwood floor surface will damage the factory finish and void the manufacturer warranty.

When wiping up excess T&G glue or spills, use a dry or damp soft cloth. Do not use paint thinner or harsh adhesive-removing chemicals on the hardwood flooring surface as doing so will damage the finish and void the manufacturer warranty.

FLOATING INSTALLATION:

We do not guarantee solid flooring in a floating installation. This is done entirely at the owners/installers risk. Engineered flooring wider than 7" should use alternative installation method also. It is important that a good quality underlay with moisture barrier should be used underneath the floating floor. Joints should be thoroughly sealed with suitable tape. The underlay and polythene should extend behind and up the full height of the skirting boards. The maximum area in which an engineered floor should be floated is 25 feet in any direction. In larger areas, a suitable profile should be used, or an alternative installation method should be considered.

Floating floors must be glued together using D-3 rated PVA glue commonly referred to as tongue and groove adhesive. DO NOT USE wood glue or carpenter's glue for floating applications. It will cause installed flooring to creak and snap when walked on.

NAIL DOWN INSTALLATION:

Suitable subfloors for nail down installation include WBP/marine Plywood or OSB grade 3. If nailing directly to joists a 20mm thick board is required. Spot glue on joist or wood subfloor is advised. Please follow the NWFA Fastener Schedule.

NOTE: 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 manufacturing defect. Our flooring is not warrantied against squeaking, popping or crackling when using staple-down or nail-down installation methods. 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. It is the responsibility of the installer to prepare the subfloor and ensure that it is clean, dry, sound, and flat. It is the responsibility of the installer to ensure a clean, sound, and quiet flooring installation. Flooring should be continually inspected throughout the process.



UNDER FLOOR HEATING (UFH):

- **Please Note:** for glue down installation please turn off for a minimum for 2 days before installation. Once the adhesive has cured the heat can gradually be increased again.
- It is important that the heating system must be programmed or controlled so that it is always kept within 60 degrees – 80 degrees. The floors should **always** be increased / decreased incrementally at no more than 5 degrees per 24-hour period.
- Moisture content must not be higher than 3.0% prior to installation.
- It is always recommended to use an appropriate sealer when installing over under floor heating and necessary where the moisture content of subfloor is greater than 3.0%-max 6.0%.
- Bring your flooring into the house in normal living conditions (temp>64 degrees and humidity 40%-60%)

PROTECTING YOUR FLOOR AFTER INSTALLATION:

We recommend that your Layer 12 Floor is the last thing to be installed in your project. If it is not able to be the last finish installed and there is going to be construction traffic we strongly recommend a high quality temporary floor covering to protect your floors. If a floor protection is used a coat of Maintenance Oil may be needed to maintain the overall beauty and durability of the floor. Any floor covering that will require adhesive tape applied to the surface will void the warranty. We strongly discourage the use of any adhesive tape for any length of time. Some of our floors have a hard wax finish, the hard-wax finish is extremely durable but, like any finish, it will show wear if the surface has high traffic.