



Solid Hardwood Flooring Installation Instructions

1 Important Information before You Begin

1.1 Installer/Owner Responsibility

Carefully inspect all materials before installation for defects. Materials installed with visible defects are not covered under warranty. Do not install if you are not satisfied with the flooring; contact your dealer immediately. Final quality checks and approval of the product is the sole responsibility of the owner and installer.

The installer must determine that the job-site environment and sub-floor surfaces meet applicable construction and material industry standards. Struxtur declines any responsibility for job failure resulting from deficiencies caused by sub-floor or job-site environment. All sub-floors must be clean, flat, dry and structurally sound.

1.2 Basic Tools and Equipment

Broom or vacuum, moisture meter, chalk line & chalk, tapping block, tape measure, safety glasses, hand or electric saw, miter saw, 3M blue tape, hardwood floor cleaner, hammer, pry bar, color wood filler, straight edge, trowel.

2 Job-site conditions

2.1 Handling and Storage.

- Don't truck or unload wood flooring in the rain, snow or other humid conditions.
- Store wood flooring in an enclosed building that is well ventilated with weather proof windows. Garages and exterior patios, for example, are not appropriate for storing wood flooring
- Leave adequate room for good air circulation around stacks of flooring

2.2 Job-site Conditions

- Wood flooring should be one of the last jobs completed in a construction project. Prior to installing hardwood floors, the building must be structurally complete and enclosed, including installation of exterior doors and windows. All finished wall coverings and painting should be completed. Concrete, masonry, drywall, and paint must also be complete, allowing adequate drying time as to not raise moisture content within the building.
- HVAC systems must be fully operational at least 7 days prior to flooring installation, maintaining a consistent room temperature between 60-75 degrees and relative humidity between 35-55%.

- It is essential that basements and crawl spaces are dry. Crawl spaces must be a minimum of 18" from the ground to underside of joists. A vapor retarder must be installed in crawl spaces using 6 mil black polyethylene film with joints overlapped and taped.
- During the final pre-installation inspection, sub-floors must be checked for moisture content using the appropriate metering device for wood and/or concrete.
- Hardwood flooring must acclimate for as long as necessary to meet minimum installation requirements for moisture content. Always use a moisture meter to monitor the flooring and job-site conditions as they acclimate, until the wood is neither gaining nor losing moisture.
- Do not install solid hardwood flooring below grade.

3 Sub-floor Preparation

3.1 Wood Sub-floors

- Sub-floor must be structurally sound and properly secured with nails or screws every 6 inches along joists to reduce the possibility of squeaking.
- Wood sub-floors must be dry and free of wax, paint, oil, and debris. Replace any water-damaged or delaminated sub-flooring or underlayments.
- **Preferred sub-floors** – 3/4" CDX Grade Plywood or 3/4" OSB PS2 Rated sub-floor/underlayment, sealed side down, with joist spacing of 19.2" or less; **Minimum sub-floors** – 5/8" CDX Grade Plywood sub-floor/underlayment with joist spacing of no more than 16". If joist spacing is greater than 19.2" on center, add a second layer of sub-flooring material to bring the overall thickness to 1 1/8" for optimum floor performance. Hardwood flooring should be installed perpendicular to flooring joists, otherwise additional 1/2" plywood must be added
- **Sub-floor moisture check.** Measure the moisture content of both the sub-floor and the hardwood flooring with a pin moisture meter. Sub-floors must not exceed 12% moisture content. The moisture difference between sub-floor and hardwood flooring shall not exceed 2%. If sub-floors exceed this amount, an effort should be made to locate and eliminate the source of moisture before further installation.
- **Sub-floor flatness.** Subfloors must be flat to within a 1/4" in a 10 ft radius or 3/16" in a 6 ft radius when using mechanical fasteners. Glue down installations require subfloor to be flat to within 3/6" in a 10 ft radius or 1/8" in a 6 ft radius
- Do not nail, staple or glue over particleboard or similar product.

4 Installation

4.1 Preparation

- To achieve a uniform color and shade mixture across the entire floor, open and work from several different cartons at a time.

- Stagger the ends of boards and maintain at least 6" between end joints on all adjacent rows.
- Undercut door casings 1/16" higher than the thickness of the flooring being installed. Also remove existing moldings and wall base.
- Start installation parallel to the longest unbroken wall. An outside wall is often the best.
- Leave a minimum 1/2" expansion space around all vertical obstructions.

4.2 Nail Down Installation Guidelines

- Snap a working line parallel to the starting wall, allowing expansion space as specified above.
- Lay one row of boards along the entire length of the working line, with the tongue facing away from the wall.
- Top-nail using 6d or 8d nails the first row along the wall edge 2"-3" from the ends and 10"-12" along the length of the board if top nailed or every 6"-8" along the side if blind nailed. Counter sink the face nails and fill with appropriate colored wood filler. To ensure proper alignment of flooring, make sure the flooring along the working chalk line is straight.
- Blind nail at 45° angle through the tongue 1"-3" from the end joints and every 6"-8" in between along the length of the starter boards. Denser species may require pre-drilling the holes in the tongue.
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- **Additional Plank Plank Flooring Requirements.** The National Wood Flooring Association recommends that plank floors (over 3" wide) need additional fastening for proper performance. (Chapter 9 of the Installation Guidelines) To achieve this in addition to the above fastener schedule use a polyurethane tube adhesive to stripe the underside of the boards every 6"-8"
- Continue the installation until finished. Distribute lengths, staggering end joints 6"-8" as recommended above.
- Thoroughly clean, sweep, and vacuum installed floor and inspect the floor for scratches, gaps and other imperfections.