



## **SOLID FLOORING INSTALLATION**

### **ATTENTION! INSTALLER/OWNER RESPONSIBILITIES**

Beautiful hardwood floors are a product of nature and, therefore, they will show variations in color, grain, texture, and appearance. These wood floors are manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be of a manufacturing or natural type.

- The installer assumes all responsibility for final inspection of the product's quality. This inspection of the flooring **MUST** be done before installation. Carefully examine flooring for color, finish and quality **BEFORE** installing it. If there are questions of acceptability, contact the seller immediately.
- Prior to installation of any hardwood flooring product, the installer must determine that the job/site environment and the sub-floor involved meet or exceed all requirements as stipulated in installation instructions and National Wood Flooring Association (NWFA), recommendations.
- Manufacturer accepts no responsibility for product failure resulting from sub floor or job site environment deficiencies.
- The installer/owner has final inspection responsibility for grade, manufacture and factory finish. He/she must use responsible selectivity and hold out or cut off pieces with defects, whatever the cause.
- The use of stain, filler or putty during installation should be accepted as normal procedure.
- When flooring is ordered, it's suggested that 10% be added to the actual square footage needed for cutting allowance on straight-run installations. For installations with islands, irregular perimeter walls, flooring run on a diagonal or parquet flooring; it is suggested that you ask your supplier for a cutting allowance on these or other unique installations. Cutting factors can vary widely and it's very important to allow extra for cutting since ordering additional material later will delay your project and possibly result in mismatches of floor color.
- Should an individual piece be doubtful as to grade, manufacture or factory finish, the installer should not use the piece.
- Once a piece of flooring has been installed, it is deemed to have been acceptable; thus no claims will be honored for finish, milling or defects.

### **PRE-INSTALLATION PROCEDURES — Job Site Inspection**

- Hardwood flooring should be one of the last items installed on a job. All work involving water or moisture (concrete, plumbing, acoustical ceilings, drywall taping, painting, stone or tile installations, etc.) should be completed prior to wood flooring being installed.
- This product can be installed on or above grade. IndoTeak Design solid strip or plank flooring must be nailed to an approved subfloor.
- Exterior grading should be complete with surface drainage directing water away from the building. All gutters and down spouts should be in place.
- Basements and crawl spaces must be dry and well ventilated in accordance with NWFA recommendations. Black 6 mil plastic is required to cover soil in a crawl space.
- Sub-floor must be checked for moisture content using an electronic moisture meter or calcium chloride test.

- Permanent air conditioning and heating systems should be in place and operational. The installation site should have a consistent room temperature of 60-80° F and humidity of 30-50% for 14 days prior to installation, during installation, and until occupied, to allow for proper acclimation.
- Flooring must also be kept inside, placed in the room of installation and allowed to acclimate prior to installation.
- Acclimation time will vary depending on site conditions and can range from days to weeks. See current NWFA guidelines.

As of this publication, a maximum of 4% difference in moisture content between flooring and sub floor is required.

## **PRE-INSTALLATION PROCEDURES — Sub-Floor Guidelines and Preparation**

### **ACCEPTABLE SUBSTRATES**

- Concrete slabs- when installing solid strip or plank flooring over concrete, a vapor retarder is always required over the concrete slab and below the wood subflooring material flooring. A minimum 6 mil construction grade polyethylene film with perm of .13 is recommended
- Appropriate OSB (23/32") or plywood sub-floor (3/4"). When installing approved sub-floor, refer to specific structural panel and manufacturer's instructions for joist spacing and nailing requirements.
- Over existing wood floors, install at 90 degrees.

### **SUB-FLOOR INSPECTION**

All sub-floors and sub-floor systems must be structurally sound and must be installed following their manufacturer's recommendations. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures. See the NWFA Guidelines in the NWFA Technical Reference Manual.

- CLEAN - your sub floor must be free of wax, grease, paint, oil, sealers and other debris. Make sure there are no loose areas and that the sub floor is structurally sound.
- LEVEL/FLAT - within 3/16" in 10 radius and/or 1/8" in 6' radius. Sand high areas or joints. Low areas can be filled with fillers that are recommended by the adhesive manufacturer, if leveling concrete. Other leveling products are available for wood sub-floors. Sub floor irregularities and undulation may cause any wood flooring installation to develop hollow spots between the flooring and the sub-floor. These hollow spots are not the result of any wood flooring manufacturing defect and are not covered by the Warranty.
- STRUCTURALLY SOUND - on wood sub-floors, nail or screw any loose areas that squeak. Replace any water damaged sub flooring or underlayments.
- DRY - Moisture content of plywood sub floor must not exceed 12% on a wood moisture meter or read more than a 4% difference than moisture level of product being installed. Moisture content of a concrete sub floor must not exceed 4.5 on a Tramax meter or 3 lbs with a calcium chloride test. If moisture exceeds 4.5 on a Tramax meter, DO NOT lay the flooring. Note: Bostik and Sika manufacture membranes compatible with their urethane adhesives to reduce vapor emissions of concrete. It is recommended if using these products to follow the manufacturer's instructions.

### **FINAL ROOM PREPARATIONS**

As part of your sub floor preparation, remove any existing base, shoe molding or doorway thresholds. These items can be replaced after installation of the floor. All door casings and jambs should be notched out or undercut to allow for expansion of the floor and to avoid difficult scribe cuts.

## **NAIL DOWN INSTALLATION**

### **TOOLS AND ACCESSORIES NEEDED FOR INSTALLATION**

Moisture retarder of 15 lb Asphalt Paper or Asphalt Laminated Kraft paper, per NWFA Guidelines Pownail Model 50P or 50M. Use manufacturer's recommended 18gauge cleats.

Hammer

Hand or Power Saw

Chalk Line

Electronic Moisture Meter

Broom and Vacuum

Important: Wood working is inherently dangerous. Please follow all tool manufacturer's safety recommendations, common sense, and industry standard safety precautions.

#### STEP 1: UNDERLAYMENT

Cover sub floor with Moisture retarder. Roll paper over the clean substrate. The next row of paper should be rolled to overlap 3-4". This process will keep dust/dirt from hardwood and retard the moisture from below.

#### STEP 2: SET UP EQUIPMENT

Inspect Equipment prior to use. Test on scrap material first. When used improperly, the cleats can damage the flooring. Parts that engage the plank must not have any exposed sharp edges that can scratch or damage the flooring. Make sure the tool's adapters seat properly in the tongue of the flooring. Note: Use only manufacturer's recommended length, 15gauge cleats. Make sure pressure is set according to manufacturer's recommendations.

#### STEP 3: MARKING YOUR STARTING LINE

We recommend you install your flooring parallel to the longest outside wall in the room. Measure out from wall 5 3/4" for 5 1/4" products, 6 1/2" for 6" products, etc. Snap a chalk line parallel to the wall. Allow a minimum of at least 1/2" at all vertical surfaces such as perimeter walls, posts, and islands.

#### STEP 4: LAYOUT STARTER ROW

Lay one row of plank along the entire length of the working line. Place groove edge of flooring toward the starting wall. Use small finish nails for top nailing the edge closest to the wall. Nail the tongue edge of the flooring in the normal manner. Space fasteners at 6"-8" apart.

#### STEP 5: INSTALLING THE FIELD FLOORING

Continue installing each additional row of flooring, maintaining proper pattern repeat. Distribute lengths to avoid "H" patterns and end joints less than 8 inches in adjacent runs. A random mixing of the various surface-graining configurations and color are suggested to enhance the natural beauty of the floor. Floor should be installed from several bundles at the same time to ensure a good color and shade mix. Always tap against the tongue, tapping the groove may damage the surface or edge. Nail flooring through the tongue on a 45 degree angle (blind nailing) with the proper adapter. Install the cleats no further than 1" from the end of each board and 6" to 8" on center. Keep the flooring clean of dust and debris as you work.

#### STEP 6: FINAL ROW INSTALLATION

When you get to the far wall you may have to cut the width of the final row to fit it against the wall, be sure to leave at least 1/2" between the last row and the wall. The tongue for the final row will need to be removed for a clean fit. Use a "Last Boards Puller" to snug the last row of planks with the completed second to last row. You again will need to face nail close to the wall to secure the flooring.

#### STEP 7: COMPLETE THE JOB

Install any transition pieces that may be needed, such as reducers, thresholds, etc. Reinstall your base and/or quarter round mouldings. (Note: All finish pieces should be ordered with the flooring to insure that they match the finish.)

#### STEP 8: CLEAN UP AND PROTECTING THE NEW INSTALLATION

Flooring should be kept clean during and after the installation. All areas that have been completed should be covered with protective rosin paper to prevent damage to the finish. If heavy trades will be occupying the home, we recommend that plywood or masonite be placed on top the rosin paper to prevent the floor from being damaged. Never use plastic or polyethylene sheeting.