

## IMPORTANT!

Inspect **ALL** materials carefully **BEFORE** installation. Warranties & Claims **DO NOT** cover materials with visible defects once they are installed. It is the responsibility of the installer/owner to determine if the job site subfloor and job site conditions are environmentally and structurally acceptable for wood flooring installation. Manufacturer declines any responsibility for wood floor failure resulting from or connected with the subfloor, subsurface, job site damage or deficiencies after hardwood flooring has been installed. Time at which to install hardwood flooring: Lay only after sheetrock and tile work are thoroughly dried and all but the final woodwork and trim have been completed. The building interior should have been dried and seasoned with a comfortable working temperature of at least 60° F and a relative humidity of 35-55% should exist during installation.

## GLUE DOWN INSTALLATION

**Tools & Materials:** Hammer, hand or power saw, chalk line, proper adhesive (see below) and proper trowel (see Figure 1 below)

### Recommended Adhesives

**5/16" - 3/8" Engineered**—Bostik's Procure; Bostik's Best; Bostik's BST or Bostik's EFA Adhesives

**1/2" - 5/8" Engineered**—Bostik's Procure; Bostik's Best; Bostik's BST or Bostik's EFA Adhesives

**1/2" - 3/4" Solid**—Bostik's Best

SUGGESTED NOTCHED TROWELS		Figure 1
5/16" or 3/8" Thick Material Engineered Construction Only		3/16" x 1/4" x 1/2"
1/2", 9/16" or 5/8" Thick Material Engineered Construction Only		1/4" x 1/8"
1/2", 5/8" or 3/4" Thick Material Solid Construction		1/4" x 1/4"

**Thoroughly Clean Subfloor:** Remove paint, wax, oil, plaster, "sheetrock Mud" and other foreign materials as well as other surface irregularities. All previous or existing glues or adhesives must be removed before installation. #3 1/2 grit open coat paper may need to be used to grind a concrete subfloor. This will loosen any dirt, loose concrete or contaminants. Sweep or vacuum thoroughly.

**Subfloor Preparation:** If subfloor is concrete, check for dryness. Use the standard rubber mat or taped plastic test. Remove after 24 hours, then visually inspect the floor for moisture. If moisture is present, DO NOT LAY. All concrete subfloors on or below grade can also be tested using a Delmhorst moisture meter, Model G-40, Tramex Concrete Encounter or Wagner Concrete meter. (Check floor in several areas). Concrete subfloors must be clean, level, sound and of sufficient compression strength (3000 lbs. P.S.I.) being sure that the surface is not slick. Sections not level such as waviness, trowel marks, etc. are to be eliminated by grinding or the use of a leveling compound. Level to a 3/16" in a 8' radius. In addition to cement subfloors, our products can be installed over dry, flat wood subfloors such as plywood. If the plywood is used as an overlay over an existing subfloor, the thickness of the overlay material must be such as to yield a total 3/4" subfloor thickness. New wood type subfloors should also be checked for moisture using a moisture meter. In general, wood or plywood subfloors should not exceed 14% moisture content or 4% moisture content difference between the wood flooring and subfloor. Document your readings if needed in the future.

Subfloor irregularities and undulations may cause any wood flooring installation to develop hollow spots between the flooring and subfloor. These hollow spots are NOT the result of any wood flooring manufacturing defect and are NOT covered by the manufacturers warranty. As part of your subfloor preparation, remove any existing base, shoe mold, or doorway thresholds. These items can be replaced after installation, but should be replaced in such a way to allow at least 1/4" room for expansion and to avoid difficult scribe cuts. This is easily done by placing a piece of the actual flooring on the subfloor as a height guide for your handsaw or jamb saw.

**NOTE:** Normally, expansion space around the perimeter of the room should be the same distance from the wall as the thickness of the hardwood flooring. See NWFA guide for details.

**Suggested Layout Working Line:** For 3" material, snap a chalk line 30 1/4" from the wall on the door side of the room. This small area will be your working space and the last area to be installed. Temporarily nail straight board on chalk line. See figure 2 below.

**Wet-Lay Installation:** When using this method, flooring is to be placed into "wet" adhesive and workers do not work on installed wood. The installation begins with the correct trowel (see above). Spread out the adhesive holding the trowel at a 60° angle. Engage the side tongue of a plank into the groove side of a plank in the installed area. Maneuver board in place so it is flush against the side plank and the end plank. Flooring that is not flat must be weighted to ensure good contact. Additional adhesive may be applied to fill minor voids. As you work, immediately clean any adhesive off pre-finished flooring with Bostik's Ultimate Adhesive Remover. **Be careful not to rub adhesive residue too aggressively as it will cause a "glossy" halo in the factory finish.** After the large part of the room is installed, go to starting area, remove the nailed starter boards, and complete the installation working out of the room. If you must walk on the floor, step carefully. When installation is complete, use wedges to hold the floor tight. Roll floor with 100 lb roller to insure transfer of adhesive. Installed floor will begin to hold tight in 8 hours, depending on humidity and temperature. Let installed floor cure for 16 before exposing to heavy traffic, and remove wedges prior to installing molding. Install final moldings.

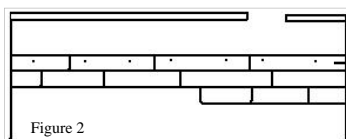


Figure 2

Starter boards are top nailed into concrete along the chalk line. Begin working away from door in main area of room. Finally, remove starter row, and complete area working out of the doorway

## STAPLE OR NAIL DOWN INSTALLATION

**Tools & Materials:** Power saw, hammer, chalkline and tool listed below

For 3/8" Flooring:

- Staple Gun: Stanley Bostich S3297-LHF 3/8" engineered flooring tool
- Staples: SB97-1G. 1" Staples

For 1/2" Engineered:

- Staple Gun: Stanley Mark 3
- Staples: 1 1/2" Staples

For 1/2" Solid:

- Nail Gun: Powernailer Model 200; M-1 Pad; 1 Shim
- Cleats: 1" E-Cleats on 5/8" Plywood; 1 1/4" E-Cleats on 3/4" Plywood

For 3/4" Solid:

- Nail Gun: Stanley Bostich MIIFS Stapler or Powernail Model 445
- Staples: 1 1/2" staples for MIIFS or 1 1/2" Powercleats for Model 445

**Subfloor & Preparation:** Subfloors should be flat to 3/16" per 8' radius. If subfloor prep work is required, "hills" should be sanded down and the "valleys" filled with an underlayment patch. Acceptable subfloors are the following:

- 5/8" minimum thickness, preferred 3/4" or thicker exterior plywood installed with long edges at right angle to floor joists and staggered so that end joints in adjacent panels break over different joists.
- 1" x 4" to 6" wide, square edged, kiln dried coniferous lumber, laid diagonally over 16" on center wooden joists. The ends of all boards are to be cut parallel to the center of the joists for solid bearing.
- 3/4 inch minimum O.S.B. on 19.2 inch center floor joists system properly nailed.

New wood type subfloors should be checked for moisture using a moisture meter. In general wood or plywood subfloors should not exceed 14% moisture content, or 4% moisture content difference between hardwood flooring and subfloor. Adequate and proper nailing as well as soundness of the subfloor should be ascertained. Foreign material shall be removed from the subfloor surface and swept clean. The clean subfloor should be covered, wall-to-wall, with 15-lb asphalt saturated felt. Lap edges of this felt 4" when positioning it. Double the felt around heat ducts in the floor.

Basement and crawl spaces must be dry and well ventilated. Crawl spaces must have a vapor barrier below subfloor on ground (6 or 8 mil. Poly)

### General Installation Instructions (see NWFA for more details):

1. Flooring should be laid at right angles to the floor joists and, if possible, in the direction of the longest dimension of the room.
2. All products have a UV-cured factory finish. It is important to make sure that the nail gun face plate will not damage the surface finish. 3M Blue tape can be placed on the faceplate to prevent damages.
3. Starting to lay flooring: Begin laying T&G plank flooring in a room corner with the long groove of the plank facing the wall. Provide expansion space equal to the overall thickness of the wood flooring plank (ex. 3/4" expansion space for 3/4" thick products) between the floor boards and the adjacent wall.
4. End joints of plank: These should be staggered to achieve the best appearance in the finished floor. (minimum 6")
5. Nailing schedule for flooring: The first run should be faced nailed then counter sunk. All other runs to be nailed at an angle of 50° on 8" centers at the tongue, also nail within 2" of each end joint.

### Important Notes:

- Solids are not recommended to be installed below grade.
- Solids should be acclimated on jobsite 5-7 days prior to installation under normal living environment (air conditioning units fully operational). However, some species take longer to acclimate. Confirm equilibrium prior to installation.
- A concrete slab is considered below grade when any part of the slab is below ground level—for example, basements are below grade.
- Baseboards should be installed so that their lower edge is slightly above the level of the finished floor, but not nailed into the floor.
- Do not install over radiant heat floors
- Do not install any product with visible defects
- To avoid movement in hardwood floor, relative humidity should be maintained year round at 35% - 55% Relative Humidity.
- The use of color coordinated wood floor putty to cover small cracks and gaps should be considered normal in hardwood flooring installations.
- See "Warranty Coverage & Preventative Maintenance" for more information regarding helpful tips on keeping your floor new for years to come.
- Molding Tip—Before installation, match the closest board in color and grain to the adjoining molding profile color and grain. Save the board (s) and use next to the molding piece.

### Moldings:



### Transitional Pieces (Moldings):

- Reducer—transitions between wood and a lower profile flooring (carpet, vinyl, etc)
- Quarter Round—covers the perimeter expansion space between the flooring and wall
- Stair Nose—transitions between the flooring and a drop off (stairs, sunken living room)
- T-Mold—transitions between similar height floorcovering (tile to wood)
- Baby Thresholds—transitions between similar height flooring or sliding doors