



## INSTALLATION INSTRUCTIONS

Prior to installation, installer should check material for appropriate grade, color, graining and finish quality. Installer should STOP THE JOB if any defects that are detectable by the eye or revealed through attempt to install are present. The manufacturer cannot accept responsibility for flooring installed with visible defects. Installer must test the subfloor for humidity to ensure the proper levels are present so that flooring will perform properly (35%-65%):

**Note:** Wood flooring installed in areas where the relative humidity is below 35% may cup, shrink in width/length, or crack and in these dry conditions a humidifier is necessary to bring relative humidity above 35%. Flooring installed on top of wet sub floors may crown, (and then cup), swell, (and then shrink), buckle, telegraph, or edge/tip raise. Flooring that is soaked from above will do the same.

DO NOT INSTALL THIS FLOORING ON WET SUBFLOORS OR IN OVERLY DRY CONDITIONS without first correcting any deficient conditions.

Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. The manufacturer is not responsible for flooring failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Temperature should stay between 65-75°F and should be consistent with normal, year-round living conditions for at least a week before installation of wood flooring.

Store the wood flooring, in the UNOPENED boxes, at installation area for 24 -72 hours before installation to allow flooring to adjust to room temperature. Do not store the boxes of flooring directly on concrete. DO NOT OPEN THE BOXES PRIOR TO INSTALLATION!

### PRE-INSTALLATION SUBFLOOR REQUIREMENTS

Subfloor should be structurally sound, clean (swept and free of wax, grease, paint, sealers & old adhesive residue which can be removed by sanding), flat to 3/16" in 10', Dry with moisture in plywood subfloors not to exceed 11% or concrete subfloors with less than 3.5 lbs moisture as measured by Tramex Commercial Concrete Moisture Meter or equivalent.

It is highly recommended, that if gluing down on concrete, (even if you believe it is dry), which is on or below grade, to install Sheet Vinyl first and then glue the wood flooring on top of the vinyl, as this provides an effective permanent moisture barrier. Another alternative to sheet vinyl is to use the Ardex Moisture Control Systems and they provide warranties to you. Ceramic tile, resilient tile and sheet vinyl covered Subfloors must be well-bonded to subfloor, in good condition, clean and level.

Do not sand existing vinyl floors, as they may contain asbestos. Radiant heat: Use only floating installation over radiant heat. Subfloor should never exceed 80°F. Check with radiant heat manufacturer's suggested guidelines to limit the maximum water temperature inside heating pipes. Switch off heating unit one or two days before flooring installation and bring heat up slowly after installation.

### INSTALLATION TOOLS

For all installation methods: Tape measure, Tapping block (or trimmed piece of flooring), Pencil, Pry bar, Chalk line, Wood or plastic spacers (3/8"), Crosscut power saw, Hammer, 3M Blue Tape

- Flooring adhesive for Rotary & Sliced Face Hardwood: Any manufacturer-approved adhesive made for engineered hardwood that suits the particular jobsite conditions. When jobsite conditions are outside supplier recommendations, the installer/contractor must contact the relevant adhesive supplier in order to receive approval of that particular adhesive being used given the site conditions.

**Note:** Use only urethane adhesives – DO NOT USE water based mastics as they will cause this floor to fail

- On concrete slabs, which are on/below grade, we strongly recommend installing Sheet Vinyl first and then installing the wood floor on the vinyl or using Ardex Moisture Control Systems. Trowel per flooring adhesive manufacturer's recommendations.

For nail-down installation, you will also need:

- Industrial Flooring Stapler or Nailer with appropriate adapter shoe to assure the proper position for the nail/staple 1/2" x 1-1/2" staples for the floor runner stapler (18 gauge); 1-1/2" L-shaped cleats (18 gauge), Air compressor



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For floating installation, you'll also need:

- 6-mil polyfilm, Approved Foam Underlayment, AAT 185 Floating Wood Tongue and Groove Adhesive, 3M Blue Tape

Acceptable Subfloor Types:

- Plywood (at least 3/4" thick), Underlayment grade particleboard -floating/glue-down only), OSB PS2 rated (at least 3/4" thick) – Note: some OSB type products will not hold the nail in place which can result in squeaky floors. This is a subfloor issue.
- Concrete slab (floating/glue-down only)
- Existing wood floor
- Ceramic tile (floating/glue-down only)
- Resilient tile & sheet vinyl (floating/glue-down only)

### STARTING YOUR INSTALLATION

- Make sure subfloor is tested for moisture first and is properly prepared.
- Since wood expands with any increase in moisture content, always leave at least a 3/8" expansion space between flooring and all walls and any other permanent vertical objects, (such as pipes and cabinets). This space will be covered up once you reapply base moldings around the room. Use wood or plastic spacers during installation to maintain this 3/8" expansion space.
- When laying flooring, stagger end joints from row to row by at least 8". When cutting the last plank in a row to fit, you can use the cut-off end to begin the next row. If cut-off end is 8" in length or less, discard it and instead cut a new plank at a random length and use it to start the next row. Always begin each row from the same side of the room.
- Work from several open boxes of flooring and "dry lay" the floor before permanently laying the floor, but never open more than a few boxes in advance. This will allow you to select the varying grains & colors and to arrange them in a harmonious pattern. It also allows you the opportunity to select out very dark/ light pieces for use in hidden areas in order to create a more uniform floor. Remember, it is the installers' responsibility to set the expectations of what the finished floor will look like with the end user first and then to cull out pieces that do not meet those expectations.
- To draw planks together, always use a tapping block, (a short piece of flooring), and hammer, as tapping the flooring itself will result in edge damage. When near a wall, you can use a pry bar to pry close the side and end joints. Take care not to damage edge of flooring. For glue down & floating applications, use 3M Blue Tape to hold any pieces, which might have side bow and the need to hold them straight & tight until the adhesive sets up.
- Begin installation next to an outside wall. This is usually the straightest and best reference for establishing a straight working line. Establish this line by measuring an equal distance from the wall at both ends and snapping a chalk line. The distance you measure from the wall should be the width of a plank plus about 3/8" for expansion space. You may need to scribe cut the first row of planks to match the wall in order to make a straight working line if the wall is out of straight.
- You may want to dry lay a few rows, (no glue or nails), before starting installation to confirm your layout decision and working line.

**NOTE:** If the flooring is to be installed adjacent to any cabinets, install cabinets first and run the floor to the cabinets. Do not install the cabinets on top of the floor. Water damage is common around cabinets and it will be much harder to spot repair the floor if the cabinets are installed on top of the flooring.

### RECOMMENDED - GLUE DOWN INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared.

- On concrete subfloors, which are on or below grade (ground level), always assume the worst and even if they measure dry, we now recommend taking the following installation steps to ensure a trouble-free installation. The cost of the precaution is little when compared to costs to rip out and replace a floor which has failed due to high moisture from the subfloor.



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- Method #1: We recommend installing a sheet vinyl floor first and then gluing down our wood floor over the sheet vinyl. Follow the vinyl manufacturers' recommendations.
- Method #2: Ardex Moisture Control Systems provide a warranty that moisture will not pass through and damage your wood flooring.

**NOTE:** Adhesive selection should be determined and verified by the flooring distributor. The flooring manufacturer recommends any urethane adhesive that has been formulated for engineered wood flooring, as long as site conditions are met. Flooring manufacturer is not responsible for determining the adhesive used. \*DO NOT use water based adhesives!

Follow adhesive instructions for proper trowel size and adhesive set time before beginning installation of flooring. Once the spread adhesive has setup sufficiently per adhesive manufacturer's instructions, lay the first row of flooring with groove facing the wall, and continue laying flooring. Always check your working lines to be sure the floor is still aligned. Use tapping block to fit planks together, but be careful not to let installed floor move on the wet adhesive while you are working.

When first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. Use a damp cloth to immediately remove any adhesive that gets on flooring surface. Warning – DO NOT allow adhesives to dry on the finished flooring as it is very difficult to remove it once dried without damaging the flooring. For info on an adhesive remover: Bostik's Ultimate Urethane Adhesive Remover. Remember to stagger end joints from row to row.

Always leave at least a 3/8" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets). Use wood or plastic spacers during installation to maintain this expansion space.

Walk each section of flooring in order to make sure it is well bonded to the subfloor within the adhesive working time. Flooring planks on the perimeter of the room may require weight on them until adhesive cures enough to hold them down. Make sure the floor is clean from debris to avoid unwanted denting.

### STAPLE/ NAIL DOWN INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared. Use Industrial Flooring Stapler from Bostich or Powernailer – air stapler/nailer with 1/2" Naildown adapter or a stapler/nailer of your choice after testing to make sure that stapling/nailing will not cause dimpling in the finished floor.

**For the first and second starting rows:** Lay first plank inside chalk line with grooved edge toward wall. Install entire first row in the same manner. Always leave at least a 3/8" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets). Use wood or plastic spacers during installation to maintain this expansion space. In order to affix these first rows, use screws to set a strong and straight starting row rather than face nailing. Begin the subsequent rows, and once you have installed enough flooring whereby the nailer will not move the starter row off alignment, unscrew the starter row, throw away the damaged pieces and glue down replacement boards with a urethane adhesive. Set weight on top of these rows and allow them to set.

**Subsequent rows:** Lay by using floor nailer/stapler to blind-nail top inside edge of tongue at a 45 degree angle. Nail each board every 4-6" and within 2" of each end. Remember to stagger end joints from row to row and use a tapping block to fit boards together. It may be necessary to face-nail in doorways or tight areas where the nailer/stapler can't fit, (or glue down in these areas and weight them while the mastic sets). The last two rows will need to be face-nailed, (or glued down), in the same manner as the first two rows.

**WARNING:** Stapling/nailing can cause dimpling on the face if stapled incorrectly. Always make sure to visually check the installed floor as you go to ensure that the stapling/nailing is not causing dimpling on the face. (Note: be sure to look at the face of the installed flooring at a low angle from a distance to see if dimpling is occurring as it is hard to see when directly above the floor.) If dimpling does occur, STOP and adjust the stapler/nailer shoe and angle/place of staple entry in order to avoid it. The manufacturer is not responsible for dimpling.



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### FLOATING INSTALLATION

\*We do not recommend using the floating method with our sliced face products.

Make sure subfloor is tested for moisture content first and is properly prepared. Not all underlayments are the same. ALL underlayments must be approved prior to installation by the manufacturer and confirmed in writing for the warranty to apply.

- Laying an underlayment of polyfilm: If below or on grade, first lay a 6-mil polyfilm with seams overlapped 8". Fasten seams every 18-24" with duct tape. Run the outside edges of film up perimeter of each wall 4" (trim after flooring installation is complete.)

Laying foam: Lay Foam Underlayment by butting edges, not overlapping. Tape full length of the seam.

- Installing the floor: Start first row with groove toward wall. Glue end joints of first row by applying a small but continuous bead of AAT 185 Floating Wood Tongue and Groove Adhesive to bottom side of the side groove. Always leave at least a 3/8" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets).

- Use wood or plastic spacers during installation to maintain this expansion space. Lay subsequent rows of flooring by applying glue to side and end joints and fitting planks together with a tapping block.

- Remember to stagger end joints from row to row at least 8" apart. Clean up any adhesive on the floor by using a damp rag – DO NOT allow adhesive to dry on the flooring face as it is difficult to then remove without damaging the flooring face.

### DOUBLE GLUE WITH UNDERLAYMENT INSTALLATION

Gluing underlayment and hardwood to a subfloor is considered a commercial application. This creates a system of materials that must all work together. DO NOT INSTALL OVER UNDERLAYMENT WITHOUT WRITTEN CONFIRMATION FROM THE HARDWOOD MANUFACTURER THAT ADHESIVE AND UNDERLAYS ARE APPROVED. Testing of specific products is required and will be done on a case by case basis. Contact your sales representative regarding projects that require such installation methods.

### AFTER INSTALLATION

- Clean up any adhesive that is on the face of the floor by using a damp rag – DO NOT allow adhesive to dry on the flooring face as it is difficult to then remove without damaging the flooring face.

- If you decide to cover the floor, (to allow the other construction trades to continue working), in order to protect the floors prior to final clean-up and turnover to the owner, use rosin paper to cover the floors and only use 3M Blue Tape to hold the rosin paper to the floor.

**DO NOT USE** plastic film or other non-breathing type coverings as this can cause the floor to become damaged from humidity buildups. Also, use only 3M Blue Tape as this tape is designed for use on finishes and other tapes may pull and damage the finish when removing it.

- Remove expansion spacers and reinstall base and/or quarter round moldings to cover the expansion space.

- It is suggested that you buff the floor with lambs wool pads in order to "pull any splinters", remove any residues and hand prints/foot prints, etc.

- Install any transition pieces that may be needed (reducer, T-moldings, nosing, etc.).

- Do not allow foot traffic or heavy furniture on floor for 24 hours (if glue-down or floating).

- Dust mop or vacuum your floor to remove any dirt or debris. Care/Maintenance Instructions available separately. Contact your sales representative for Instructions.