AKAFLOOR®

Installation Instructions - Solid Prefinished Flooring

(267) 891-2635
SAC Akafloor

www.akafloor.com

akafloorusa

APPLICATIONS

Prefinished solid hardwood floors are typically installed using **standard flooring nailers or staplers. Natural variations and characteristics within species such as hardness and brittleness** can affect installation time or workability and is **not considered a manufacture defect.**

This flooring is not intended for below-grade or radiant heat applications.

In addition, **approved underlayments can be applied under this flooring** to meet the needs of customers, building specifiers and condominium associations desiring a **quieter and warmer floor.**

HANDLE WITH CARE

It is understood that **wood products are sensitive to moisture, temperature and humidity.** Store your new flooring inside in the area to be installed not in buildings, garages, sheds without climate controls or directly on bare concrete or next to outside walls.

It is important to keep wood flooring dry, protect the flooring from rain or snow during transportation.

Lay the flooring flat in a dry, level place. Provide **air flow** under and around cartons.

Cartons should be placed close to the center of the installation area as possible. **Keep out of direct sunlight and away from heat/air vents.** To prevent board warping, twisting or bowing **do not cut the outside plastic banding straps or remove product from the box until ready to install.**

OWNER/INSTALLER RESPONSIBILITIES

- Wood flooring is a product of nature characterized by **distinctive variations in grain, pattern, and color. These natural variations are neither flaws or defects,** but rather the natural beauty and uniqueness of wood, and should be expected.
- Only **stained products** will have the most **uniformity in color or shade.**
- Before beginning the installation, first determine if the **job site and subfloor conditions are acceptable.**
- The in-home environment, weather fluctuations and product storage can **adversely affect all organic materials (SEE ACCLIMATION).**
- The customer/installer is responsible for **final inspection of quality, and for moisture testing** the subfloor and wood flooring.
- During installation, use reasonable **board selectivity and good judgment.** From a standing position any individual board deemed unacceptable in appearance **should not be used.**
- **Defects should be cut off placing the remainder in closets or near walls.** To minimize gapping, boards of similar widths should be placed together in the same row.
- A reasonable amount of installed flooring **(up to 25% or 100sqft whichever is less)** is enough to determine **acceptance of quality.**
- Because installation constitutes acceptance, once the flooring is completely installed, it is deemed **appropriate for use by all parties concerned.**
- If milling or quality issues are suspected **stop the installation and call your distributor sales representative or claims administrator immediately.**
- The manufacturer **shall not be responsible** for costs associated with **repairing or replacing flooring installed with visible defects.** Our floors are manufactured in accordance with accepted industry standards that may allow **possible defects not to exceed 5%.**
- Depending on layout, custom installations and species selection **additional material** should be included in the order to complete the project.
- The use of **putty, stains, wood blend sticks or markers** to touch-up prefinished hardwood flooring before, during and after installation is considered **normal practice.**

JOB SITE INSPECTION

- The yard around the workspace should be graded to allow water to run away from the building.
- The building must be **enclosed.**
- The crawl space or basement **must be dry.**
- Crawl space should be a **minimum 18" from the ground** to the underside of the joist.
- To prevent moisture related issues such as buckling or cupping, all wet trades involving water or moisture (plumbing, ceramic tiles, drywall finishes, painting, etc.) should be finished with **ample time** allowed for complete drying prior to wood floor installation.
- Gutters should be in place and function properly to direct water away from the foundation.
- For best performance, **wood flooring should be one of the last items installed.**
- (HVAC) Heating, Ventilation and or Air conditioning systems should be fully operating and running with temperature **between 60F and 80F with humidity between 30% and 50%,** before, during and maintained after installation.

NOTE: Some regions of the country are moderate in both temperatures and humidity. Homes in these regions may not have typical (HVAC) Heating, Ventilation and Air-conditioning systems to regulate the indoor environment. Therefore, in this and in all cases, **it is the flooring professional or homeowner's responsibility** to determine the indoor environment or moisture content of the wood flooring is suitable for installation and its on-going maintenance.

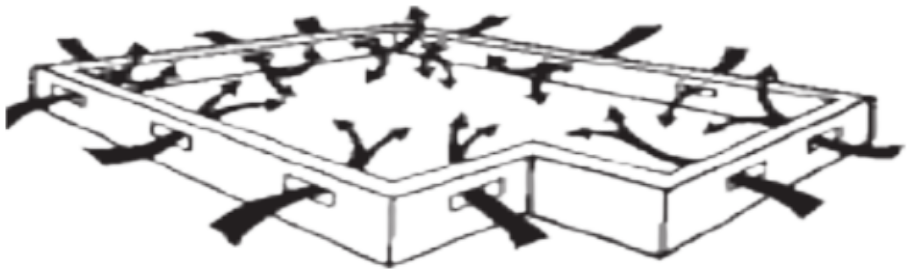
VENTILATED CRAWL SPACES

Per (IRC) International Residential Code, Section R408.1
Inspect the under-floor crawl space. It must have **vents for proper cross-ventilation (pic1).** Venting allows damp areas to **dry-out,** reducing the likelihood of **mold growth,** and to minimize moisture pressure or build-up under homes. Provide year-round air circulation with **multiple vents,** a minimum of 1 square foot for each 150 square feet of under-floor space area. One ventilating opening shall be **within 3 feet of each corner.** Ventilation fans can be used in the crawl space area to **circulate the air, promote drying and reduce dead air spaces.**

(Exception R408.2; "Where warranted by climatic conditions, ventilation openings to the outdoors are not required if, ventilation/conditioned openings to the homes interior are provided.")

Ground Cover: under the home in the crawlspace completely cover 100% of the soil to guard against ground moisture. Use black 6-mil virgin polyethylene sheet plastic as a moisture vapor barrier. When connecting, overlap any seams 6” and tape seams completely.

(Pic1)



ACCLIMATION/CONDITIONING OF THE FLOORING

After harvesting, wood flooring is kiln-dried for optimum service. During transit, delivery and storage, wood flooring must be **protected from moisture. Wood is hygroscopic,** meaning its size and shape changes with the absorption or release of moisture. **The amount of change varies** with wood species, cut, and type of flooring. Therefore, wood movement (shrinkage or expansion) is to be properly controlled and achieved at the worksite. First, acclimate the new flooring while in the boxes in the areas to be installed to the expected environment that the floor will service. If products are packaged in plastic, remove the plastic wrapping from the outside of the boxes to speed up the acclimation process. The length of acclimation time is not the determining factor. **The goal is to reach a moisture balance between the new flooring and its normal indoor surroundings** before assembly, fastening or installation **(SEE MOISTURE TESTING).** Extended conditioning is not unusual for exotic species having natural oils or for very dense species like Brazilian Teak, Brazilian Cherry, and Mahogany, Rosewood, Redwood, Brazilian Walnut and others.

For best performance, condition and **maintain the flooring to consistent indoor temperatures of 60°-80° F and indoor humidity levels of 30% - 50%, before, during and after installation.** Depending on your local conditions the use of a **dehumidifier or a humidifier** may be necessary to maintain the desired results. Very dry or humid regions of the country usually require extended conditioning to balance the wood to the environment it will service. Proper jobsite conditions, acclimation, moisture testing of the subfloor and new flooring all work together for the success of the installation and is the responsibility of those overseeing the project. **Not following the above recommendations can negatively impact board performance and can result in excessive movement, squeaks, board gapping, board-edge cupping, finish splits and other related issues.** This is especially true regarding flooring placed in seasonal or vacation homes without proper ventilation and climate conditions.

SUMMER/WINTER MOISTURE CONTENT MAP

The USDA map of the United States below shows the average moisture content of interior wood products for each state and region. **– SEE MOISTURE TESTING.**

The first number indicates the **average moisture content of wood in January (winter or lower humidity months),** and the second number indicates the **average moisture content in July (summer or higher humidity months).**
To calculate what the optimal average wood moisture content is add the high season and low season together, then divide by two.
Example: If your region has an expected low of 6% to a high of 12%, the average baseline moisture content of the wood would be 9%.

When wood flooring has achieved the average in moisture content for the geographical location and the **proper relative humidity conditions** are present the installation can begin. If the moisture content of the product is outside of the average moisture content of that region, extend the acclimation time. **This map is merely a helpful guide for installation, actual moisture content in any location may differ significantly from these numbers.** Ideal interior environmental conditions will vary from region to region and jobsite to jobsite. The most reliable moisture content numbers will be obtained using a **moisture meter** to determine the moisture content of the new wood flooring in relation to the subfloor.

NOTE: Some regions of the country are moderate in both temperatures and humidity. Homes in these regions may not have typical (HVAC) Heating, Ventilation and Air-conditioning systems to regulate the indoor environment. In this and all cases, **it is the flooring professional or homeowner's responsibility to determine the indoor environment or moisture content of the wood flooring is suitable.**

Average Moisture Content (%) by U.S. Region

The effects of Temperatures and Humidity on wood flooring

It's understood that **wood products are sensitive to moisture, temperature and humidity.** Refer to the chart below to better understand the best in-home environmental relationship between **relative humidity (RH) and temperature,** and its effects on wood moisture content. Refer to the current weather conditions in your area; find the combination of temperature and RH in your area on the chart (temperature variations are listed on the left side of chart, humidity variations are listed along the bottom).

MOISTURE CONTENT OF WOOD
AT VARIOUS TEMPERATURES AND RELATIVE HUMIDITY READINGS

Temperature (°Fahrenheit)																			
30	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
40	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
50	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
60	1.3	2.5	3.6	4.6	5.4	6.2	7.0	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	26.8
70	1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	26.6
80	1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	26.3
90	1.2	2.3	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	26.0
100	1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	25.6
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	98

Relative Humidity (percent)

Chart taken from *Wood Handbook: Wood as an Engineering Material*, (Agriculture Handbook 72), Forest Products Laboratory, U.S. Department of Agriculture.

Note: Wood products properly acclimated and maintained to consistent temperatures of **60°-80° F and humidity 30% - 50%** will become relatively dormant, **less likely to shrink or expand.** Wood flooring kept outside these recommended values can **negatively impact board performance and may result in excessive movement, squeaks, board gapping, board-edge cupping, finish splits and other related issues.** Acclimation is the responsibility of the **installer and or homeowner.** Depending on your local in-home conditions, the use of humidification/dehumidification equipment may be recommended to maintain the proper in-home environment.

GENERAL INFORMATION - all installations

- Install flooring in normal proper lighting;
- Save a box of flooring for future repairs;
- Do not install in full bathrooms or areas with steam;
- Inspect subfloor for flatness, squeaks, and moisture;
- Do not install this product over radiant heat systems;
- Do not install this product below-grade or in basements;
- Avoid board grouping board sizes should be intermingled;
- Use breathable materials like paper when protecting a newly installed floor;
- Inspect flooring during installation select out boards have milling and finish defects;
- The customer is advised to be home during the installation for consultation/direction;
- Customer and installer should discuss installation and layout to maximize satisfaction;
- It is helpful to save the item number found on the packaging box ends for future references;

- Jobsite subfloors can be dry today and wet tomorrow. The use of moisture barriers is recommended;
- Floor should be installed from several cartons at the same time to ensure good color, shade and appearance;
- An Expansion space must be left around the perimeter and at all vertical obstructions. This space is normally the same as the thickness of the new flooring. For example; 1/2” flooring requires 1/2” expansion.

HELPFUL TOOLS

- Pencil
- Chalk line
- 6’ level
- Miter saw
- Table saw
- 60 tooth carbide tip saw blades
- Broom
- Jamb saw
- Eye protection
- Ear protection
- Niosh Dust Mask
- Gloves
- 18ga Norge floor Nailer
- Floor fasteners
- Hygrometer (to monitor in-home humidity)
- Blue painters tape (2080)
- PVA wood glue
- Compressor with regulator
- Drill
- Drill bit set
- Hammer
- Nail set
- Moisture meter (wood)
- Calcium chloride moisture test (concrete)
- Approved adhesive remover (glue down installs)
- Cloth rags

AKAFLOOR®

MOISTURE TESTING SUBFLOOR and NEW FLOOR

Most wood flooring failures result from jobsite moisture. Do not unpack or deliver flooring to the jobsite until moisture problems are corrected. The goal of moisture testing is two-fold. **(1) To determine when the installation can begin and (2) to verify that proper moisture balance between the new floorboards and that of the existing subfloor has been achieved.** Verify by using a moisture meter that will have individual species settings (pic1). Pin or probe meters that have adjustable species settings are most accurate. Contact the meter manufacturer directly for your alternate or substitute species settings. Meter examples; (Tramex, Ligno- DX/C, or Delmhorst).

Test the subfloor

Set the meter to the type of subfloor. Obtain an average by meter testing the subfloor (10 locations per every 500sqft). Test around exterior doorways, near plumbing and foundation walls and in the center of the room. **On average, the subfloor moisture range must not exceed 12%.**

Test the new flooring

Set the meter to the proper wood species. Obtain an average reading by testing (20 boards out of every 500sqft) of new flooring. **The flooring can have acceptable moisture range between 4%-8%, with no more than 5% of total material containing a variance up to 10%.** After thoroughly testing both the subfloor and the flooring, be sure that the average moisture content of both doesn't differ by more than 4% for strip flooring (boards 2 ½" or less) and 2% for plank flooring (3" or wider). If high moisture readings are found in either the new floor or subfloor identify the moisture source and correct. Extend acclimation time. Postpone the installation until the proper conditions have been met. **It is recommended to document moisture test results with notes should future questions arise;** include a record of the customer's name, the order number and digital pictures showing the meter used, including the time and date.

WOOD SUBFLOORS

All wood subfloor components must not exceed 12 percent moisture content.
Do not install flooring directly over floor joist without subflooring.
Subfloors provide strength and a proper nailing base.

- Install subflooring sealed-side down. Square-edged or non-tongue and grooved panels used as a subfloor will require a minimum 1/8˝ (3 mm) expansion space placed between all plywood seams. Panels must meet minimum CD grade Exposure 1 and US Voluntary Product Standard PS1-95, PS2-04 or Canadian performance standard CAN/CSA 0325-0- 92 for construction sheathing. Check panel/supplier for codes.
- Solid board planks used for subflooring should be ¾" x 5 1/2" (1" x 6" nominal), Group 1 dense softwoods, No. 2 Common
- Particleboard, Luan or Masonite: is not recommended for nailing solid wood, remove and replace with minimum recommended subfloor material to meet minimum thickness requirements or cover with 3/8" plywood underlayment.
- Minimum of 3/8˝CD panel thickness is recommended when used as an underlayment when needed.
- Avoid pressure treated plywood for interior use. These can have elevated moisture or latent with rot resistant chemicals.

Note that joist spacing determines minimum subfloor thickness

- Joist spacing **16"** (oc) on center or less Plywood: Minimum of (5/8˝, 19/32) Oriented Strand Board (OSB): minimum (3/4˝, 23/32") Advantech minimum (3/4˝, 23/32")
- Joist spacing **16" up to 19.2"** (oc) Plywood: Minimum of (3/4˝, 23/32") Oriented Strand Board (OSB): minimum of (3/4˝, 23/32")
- Joist spacing **over 19.2"up to maximum 24"** (oc) Plywood: Minimum of (7/8") Oriented Strand Board (OSB): Minimum of (1") or two layers of subflooring, or brace between truss/joists in accordance with local building codes.

Wood floor orientation

- Nail wood flooring **perpendicular to the floor joist.**
- Nailing wood flooring **parallel to the floor joist** is an option using a combination of plywood, OSB, Advantech or similar approved subfloors. Floor joist (16" to 19.2 oc) The total subfloor thickness minimum must be 1-1/4" Floor joist (19.2 to 24"oc) The total subfloor thickness minimum must be 1-7/16".

When nailing over existing solid wood tongue and groove flooring, install over an additional 3/8” plywood or run the new floor perpendicular or at a 45 degree angle to the direction of the existing flooring.

Flatness

All subfloors should be flat to within 3/16” in 10 feet or 1/8” in 6 feet radius. **Wood subfloors must be securely nailed or screwed to joists to minimize movement or squeaks.** Install over 16” minimum center-to-center joist sub-structure. Thoroughly inspect and replace existing floor or subfloor that shows evidence of water damage or structural weakness. Repair any sagging or loose sections of the subfloor. Squeaky or loose boards should be re-secured. **An uneven or cupped subfloor can be an indication of excess moisture or rot, identify and correct.** High spots/joist may be sanded down. Low spots should be cut out and repaired or may be filled with old pieces of firm vinyl or build up with 30 lb. black roofing paper. **Do not fill-in low areas under nail down flooring with cement patching materials** as these may break down over time.

New Construction: It is the builder’s or general contractor’s responsibility to provide the wood flooring contractor with a subfloor that is within the tolerances listed above. Postpone the installation until corrections have been completed.

CAUTION: Do not sand any surfaces containing lead-based paints, finishes, or asbestos. For buildings built in 1978 and earlier, contact the EPA for lead based testing prior to any sanding **(www.epa.gov).**

NAILERS/STAPLERS

Nailing tips Tongue fracture and surface dimpling is not a manufacturer defect and can be minimized by installing the flooring in proper lighting, using the correct nail thickness or gauge, using the recommended shoe adaptor, or changing the height/angle of nail entry.

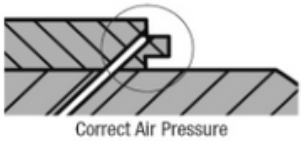
1. To further reduce the occurrence of surface dimpling and tongue fracture **the use of thinner 18-gauge cleat nails is recommended,** especially for harder exotic floors, but is no guarantee to prevent all surface dimples.

In addition, many installers will sometimes adjust the nailing angle temporarily by applying layers of duct tape to the bottom foot plate. **The use of an over-size base or foot plate to distribute the nailing force is encouraged.** If however, surface dimpling still occurs, pre-drill and hand nail the flooring using a 3/32" drill bit and 6d steel finish nails.

2. Use caution when using staples on exotic flooring. Staples may increase the risk for tongue fracture and surface dimples. Do not mix fasteners when nailing. Staples and cleats hold differently when mixed can result in irregular fastening and or may allow excessive movement. When face or top nailing, pre-drilling is recommended. Pick areas of the grain or pattern that would best hide touch-up fillers.

3. Do not use significantly bowed, crooked or twisted boards. Use a **wood spline or slip tongue** whenever a change in board direction is needed. Splines should be glued with approved wood glue and nailed into place. Forcing or pounding floorboards together with a rubber mallet during assembly can bruise or damage factory finished board edges.

When using air compressors adjust the regulator to ensure proper air pressure and setting of fasteners. Set air compressor to **70-80 PSI,** test the nailer. **Do not exceed the nailer or air hose limitations.** Make sure that the fastening machine is recommended for the floor, is in good working condition, is fully adjustable, is at the appropriate angle and secures fasteners properly against the tongue of the board to prevent top edge and surface dimple damage.



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.**

Use of Pneumatic Staplers and Nailers

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 and is therefore not covered under our warranties (see warranty brochure for complete warranty coverage).** You can help reduce squeaking, popping, and crackling by being sure that the subfloor is structurally sound, does not have any loose decking or joists, and is swept clean prior to installation. You should also be sure that your stapler or nailer is setting the fastener properly, not damaging the planks, and that you are using the correct nailing schedule. **When used improperly, staples or cleats can damage wood flooring.** If the tool is not adjusted properly the staples/cleats may not be positioned at the proper angle and cause blistering, peaking, squeaking, or crackling of the floor. Some models may require the use of an adapter to adjust for proper thickness.

Test the tool on a piece of scrap material first: Set the stapler/nailer flush on the tongue side of the plank and install a staple/cleat. Should the staple/cleat penetrate too deeply reduce the air pressure. If the staple/cleat is not deep enough then increase the air pressure using an in-line regulator. The crown of the staple/cleat should sit flush within the nail pocket to prevent damage to the flooring and to reduce squeaking. **Akafloor is not responsible for damage caused by mechanical fasteners.**

Recommended Fastener Lengths and Specifications

- **For 3/8” thick Engineered products:** minimum length is 1¼” to 1 ½” 18-gauge staple OR 1 ¼” 18-gauge cleat nail
- **For 1/2” thick EGD/Solid products:** minimum length is 1 ¼” to 1 ½” 18-gauge staple OR 1 ¼” 18-gauge cleat nail
- **For 5/8” thick Engineered products:** recommended length is 1-½” 18-gauge staple OR 1 ¾” 18-gauge cleat nail
- **For 3/4” thick Solid products:** recommended length is 1 ¾” 18-gauge cleat nail

Read and follow the manufacturer's instructions for complete set-up and operation of equipment.

AKAFLOOR®

NAILDOWN INSTRUCTIONS

Nail flooring in good lighting and make adjustments as needed. **Up to 25% or 100sqft of installed flooring** whichever is less is enough to determine acceptance of quality. If satisfied, continue with the installation. Installation beyond this scope constitutes acceptance of product quality. When top nailing pre-finished flooring (the first and last rows, stair treads, and risers) it is recommended to pre-drill and hand nail using a **3/32”** drill bit and 6d finish nails. Although pneumatic finish nailers are faster, improper use can easily damage the board or finishes. When installing wood floorings over crawl spaces or rooms over basements and garages use **moisture vapor paper** (such as red rosin paper or 15 lb. black roofing felt paper) or similar as a minimum to provide protection against moisture vapors. Install underlayment parallel to the new flooring. When installing over wood subfloors, install the new flooring **perpendicular to the floor joist.**

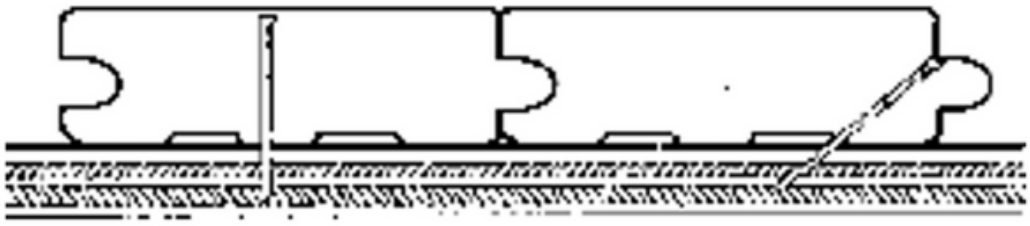
INSTALLATION PREP

Use a **jamb saw (manual or powered)** to undercut all door jambs/casing to allow enough clearance for the wood flooring to easily slide underneath. A gap (business card thick) between the top of the wood flooring and bottom of the door jamb is acceptable. Sand down any high spots or high subfloor seams. Correct low spots (See subfloor prep). Sweep or vacuum the subfloor clean of dust and debris. Install moisture retardant underlayment and staple it down to prevent movement/sliding.

STEP 1: THE FIRST THREE ROWS

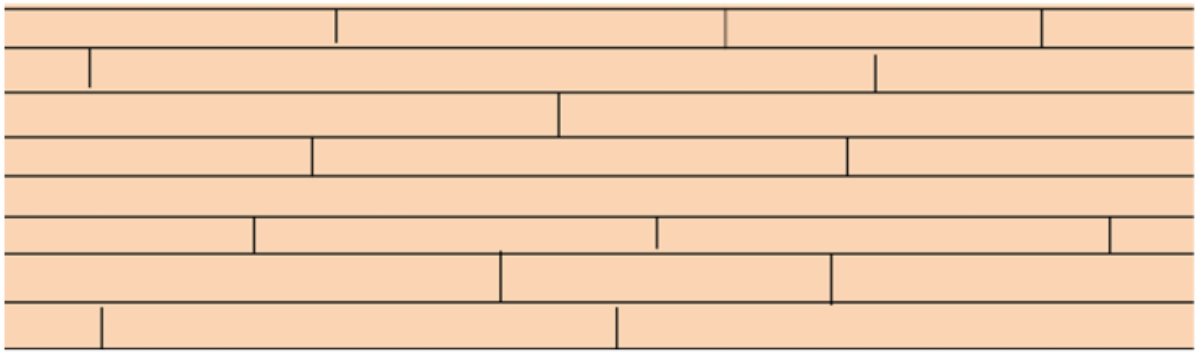
- **Determine the starting wall, usually the longest or outside foundation wall.** At the two opposite ends of this wall, measure out the width of the board, plus the expansion space, and place a mark. (Do not include the tongue of the board when measuring). An Expansion gap or space must be left around the perimeter and at all vertical obstructions. This space is normally the same as the thickness of the new flooring, for example, **1/2” flooring requires 1 /2” expansion gaps.**
- Snap a chalk line connecting the two marks. **Align the tongue side of the first row of boards on the chalk line** with the groove side towards the starting wall, maintain the expansion space.

- Install the flooring with the **tongue side facing away from the starting wall** (Use long straight planks for first two rows). **Nail on the tongue side of the flooring. (See picture)**
- Pre-drill and top nail the first row of boards using a **3/32”** drill bit and 6d finishing nails about **1” from the back edge.** Countersink the finish nail using a nail punch and fill with close matching wood filler. Pre-drill and blind nail the 2nd and 3rd rows using 6d finish nails above the board tongue until nailing machines can be used (set finish nails with a nail punch).

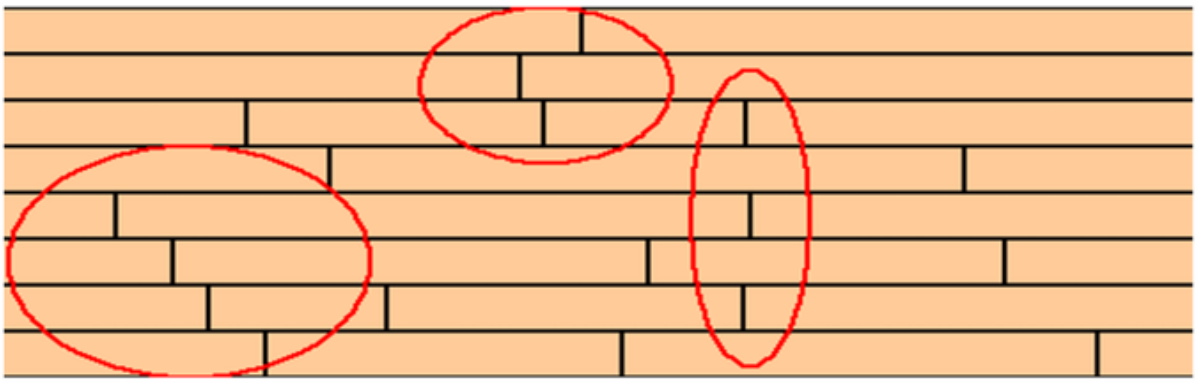


STEP 2: FLOORING LAYOUT (Racking)

After installation of the first three rows, **loose lay about 100sqft of flooring about 4” or 5” away from the last secured row.** Pull from several boxes to mix board color and sizes to create a random appearance. Visually inspect flooring for defects while racking. **Stagger boards randomly as possible, avoid creating patterns. See picture for proper layout guidance.**



(pic1) Staggering board randomly adds strength to the total floor



(pic2) Avoid “stair step” and “H” patterns. Avoid lining-up board ends and spacing boards closer than 6”

STEP 3: INSTALLATION CONTINUED

- After laying-out or racking 100sqft of flooring begin nailing the floor using a hardwood flooring nailer. Visually inspect board for defects while nailing. Use proper fastener spacing. For Solid nailing of **3" or less in width,** minimum two fasteners per piece **near the ends (1-3") and every 8-10" apart on board.** For Solid nailing of **3 ¼" or wider,** minimum two fasteners per piece **near the ends (1-3") and every 6-8" apart on board.** Continue nailing until you get to the last one or two rows. The first and lasts few rows usually need to be top nailed. **Pre-drill using a 3/32" drill bit and use 6d finishing nails.**
- **The last row may have to be ripped down in width to fit.** If the last row is less than 1" in width use carpenter's wood glue to join the last piece to the previous row.

WIDE PLANK INSTALLATION TIPS (Board width sizes 4" and over)

Wide planks are milled to strict tolerances, however, **factors such as weather, shipping, storage and acclimation can cause wood to change shape; expand or contract after milling.** The following recommendations can help you perform a successful installation using wide plank flooring.

- **No two planks are alike.** The inner heartwood and outer sapwood will have **dimensional and color variations.** To minimize gapping during installation boards of similar widths should be placed together in the same row. **Defects should be cut off** placing the remainder in closets or near walls.
- **Seasonal gapping or cupping is common with all wood flooring.** To minimize the occurrence of board movement **maintain a constant indoor humidity of 30%-50% and temperatures to 60-80 before,** during and after installation. **Humidifiers and dehumidifiers** are used to maintain the proper environment and minimize wood floor movement.
- To reduce the occurrence of cupping with wide plank flooring in room areas over 20 ft. wide, many installers will nail and glue the boards to the subfloor. When doing so **follow the recommended nailing schedule and use an approved wood floor adhesive.** Note that the greatest influence in controlling board movement is maintaining the recommended indoor environment and providing moisture control.

- When installing wood floorings over crawl spaces or rooms over basements and garages use **moisture papers such as (white Silicon Vapor Shield® or 15 lb. black roofing felt paper) or similar as a minimum to provide protection against moisture vapors.**
- Depending on your geographical area, **interior climate controls and installation time of the year** additional spacing between rows may be needed to provide additional expansion during seasonal times of elevated humidity. During the installation washers or dimes can be placed temporarily between rows to ensure the additional space, placed at every 4’ to 5’ intervals. **Remove the washers after installation.**

STEP 4: FINISHING UP

Fill in nail holes and minor gaps with close matching wood filler. Install any base board molding and shoe molding Install transition moldings Clean floor using the approved hardwood cleaner Use felt pads under furniture legs Protect against moving appliances and heavy furniture.

AKAFLOOR®

(267) 891-2635
SAC Akafloor

www.akafloor.com

akafloorusa