Laminate Installation Guide

Materials Required for Installation

Tape Measurer	Moisture Reading Device/Testing Method Moisture
Square Ruler	Mitigating Primer
Chalk Line	Jamb Saw
Utility Knife	Miter Saw
Wood Cleaner	Safety Goggles
Table Saw	Pry bar & underlayment

Job Site Conditions

It is the responsibility of the installer/owner to determine if the job site sub floor and hob site conditions are environmentally stable (Temp 60°F - 80°F / Relative Humidity 40% - 60%) and structurally (See local building codes) acceptable for wood floor installation. The customer and/or installer is responsible for wood failure resulting from or connected with sub-floor, subsurface, job site damage or deficiencies after the hardwood flooring has been installed. See NWFA guidelines.

Acceptable Subfloors

Alife Vinyl Floors will not warrant or accept responsibility of any kind for flooring failures related to the use of unacceptable substrates and surfaces. Any failure of the subfloor or flooring due to the subfloor is not the responsibility of Alife Vinyl Floors. **All subfloors must be tested for moisture and documented for warranties to be maintained. All subfloors must also be primed with approved Moisture Mitigating Primer/Moisture Vapor Barrier.**

Acceptable Substrates

Concrete
Portland Based Underlayment
Terrazzo
APA Approved Plywood
Fibre Cement Underlayment
Radiant Heated Subfloors (not exceeding 80°F (24°C))

Wood Subfloor

Wood sub-floors need to be well nailed or secured with screws. Nails should be shanks and screws need to be counter sunk. The wood sub-floor needs to be structurally sound and dry. It should not exceed 3% f the moisture content of wood flooring to be installed prior to installation. If the sub-floor is single layer, less than ¾’ thick, add a single cross layer for strength and stability (minimum 5/16” thick for a total 1” thickness). This is to reduce the possibility of squeaking.
Wood sub-floors must be free of paint, oil, existing adhesive, wax, grease, dirt, urethane, varnish, etc. Underlayment grade OSB (not the wax side) is also a suitable sub-floor. Particleboard can be used as a sub-floor in a glue less floating installations. When installing over existing wood flooring, install at

right angles to the existing floor. Sub-floor Moisture on and below grade applications are susceptible to moisture and should be tested for moisture prior to installation in several locations within the installation area. Acceptable conditions for above, on and below grade applications are:

- Less than 3 lbs. /1000 sq. ft. /24 hrs. on calcium chloride test
- Less than a reading of 5.0 on a Tramex Concrete Moisture Encounter (moisture meter) To correct any sub-floor problems concerning moisture, either wait until the sub-floor dries to meet specifications or use appropriate moisture barrier. Note: Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayment for a floating installation and must be removed. Terrazo, tile and any other hard surfaces that are dry, structurally sound and level, as described above, are suitable as a sub-floor for locking floating engineered wood floors.

Concrete

New concrete slabs require a minimum of 90 days drying time before covering them with any laminate floor. Lightweight concrete has a dry density of 100 pounds or less per cubic foot and is only suitable for engineered wood floors when using the floating installation method. Many products have been developed as self-leveling toppings or floor underlayment. These include cellular concrete, resin reinforced cementations, underlayment, and gypsum-based materials. Although some of these products may have the necessary qualifications of underlayment for wood flooring installation, others do not. To test for lightweight concrete, scrape a coin or key across the surface of the sub-floor. If the surface powders easily or has a dry density of 100 pounds or less per cubic foot, use only the floating installation method. All Concrete sub-floors must be dry, smooth (level with 3/16” in a 10-foot Radius – 1/8” in 6”) and free of structural defects. Hand scrape or sand with a 20 grit #3-1/2 open face paper to remove loose, flaky concrete. Grind high spots in concrete and fill low spots with a Portland based leveling compound (min 3,000 psi). Concrete must be free of paint, oil, exiting adhesives, wax, grease, dirt and curing compounds. These may be removed chemically or mechanically, but do not use solvent-based strippers under any circumstances. These laminate floors may be installed on grade, above grade, as well as below grade where moisture conditions do not exist. To ensure a long-lasting bond, make sure that the perimeter of the foundation has adequate drainage and vapor barrier.

- Less than 3 lbs. /1000sq. ft. /24 hrs. on calcium chloride test
- Less than a reading of 5.0 on a Tramex Concrete Moisture Encounter (moisture meter)

Radiant Heated Sub-floors

A water radiant heat system must have been fully operational for at least a period of 4 weeks where temperatures will vary between 64°F to 72°F. The system must be verified as to being at the correct pressure, that the system is operating correctly and must be adjusted to a minimum temperature of 64°F. Before installing over a radiant-heated floor, turn off the heat and wait until the floor has reached room temperature. After installing the floor, return the heat to the previous setting slowly by adding 4°F at a time per day. Caution: The slab surface must never exceed 80°F. It is important to check with the manufacturer of the radiant-heat system that the chosen flooring is compatible with the water radiant heated system. Please note that when a floating is installed over a radiant heated sub-floor, it is normal to see gaps between flooring strips depending on the season, however, by maintaining the relative humidity level between 40% and 60% all year round, gapping between boards should be very limited.

For an installation over an electric radiant heat system, verify with the manufacturer of the radiant system that it is suitable for the type of flooring you wish to install. Same conditions apply as to temperature and relative humidity levels.

Grade Levels

On-Grade

An acceptable on-grade floor is a concrete substrate in direct surface contact with the ground at the surrounding ground level. The concrete slab should be protected from moisture penetration and incorporate a permanent, effective moisture vapor retarder.

Below-Grade

An acceptable below-grade floor is a concrete substrate partially or completely in contact with the ground below the average surrounding ground level. The concrete slab should be protected from moisture penetration and incorporate a proven moisture vapor barrier. The concrete slab should be protected from moisture penetration and incorporate a permanent effective moisture vapor retarder.

Unacceptable Surfaces

Cushion-Back vinyl
Laminate
Any floating system floors
Carpet

Moisture Testing

All concrete slabs, both old and new, must be tested for moisture transmission using the Calcium Chloride Moisture Test according to ASTM F1869. Moisture vapor transmission should not exceed the recommended levels of between 3-5 lbs. per 1,000 sq. ft. in 24 hours. This test should be performed and documented prior to installation. Also test for relative humidity in concrete floor slabs using in-site probes, which should be no more than 80% RH or 95% RH per ASTM F2170 before, during and after installation.

pH Levels

pH on concrete substrates must be between 7 and 9.

Storage and Handling

Thoroughly inspect laminate panels before installation. The warranty does not cover labor for repair or replacement when a panel with visual defects is installed permanently.

Always store flooring horizontally in the original, un-opened package.

The storage area must be climate controlled with a temperature range between 65°F and 90°F (18°C and 32°C) and a relative humidity not exceeding 65%.

Do not stack pallets more than 3 high. Store pallets so they are protected from fork lifts or other traffic.

Protect package corners during storage.

Always handle cartons carefully. Do not puncture packaging. Cartons should not be opened until time of installation.

Under normal conditions, Laminate flooring does not need to be acclimated to the job site. If extreme temperature and humidity variations exist during storage or transportation, acclimating the laminate flooring to jobsite conditions is recommended.

The floor must be clean, smooth, flat and dry. Remove all foreign substances such as wax, grease, dirt, construction marks and contaminants, and any substance or chemical that would interfere with a good bond. Avoid using sweeping compounds. Do not install over substrates that have been chemically cleaned. The flatness of wood subfloors or underlayment must not exceed on variation of 3/16” in 10 feet.

Please Note: If removal of existing resilient floor covering is required, follow all recommended Resilient Floor Covering Institute (RFCI) work practices at www.rfci.com.

WARNING

For installation over old resilient floor coverings or when considering removing existing resilient floors, please be advised that these products may possibly contain asbestos fibres or crystalline silica. Please follow all recommended Resilient floor Covering Institute (RFCI) work practices at www.rfci.com.

Subfloor and Wall / Door Preparation

Remove all moldings and wall-base and undercut all door casings with a hand or power jamb saw using a scrap piece of flooring as a guide. “Racking the Floor” – Start by using random length strips from the carton or by cutting four to five strips in random lengths, different by at least 9”. As you continue working across the floor, be sure to maintain the 9” minimum stagger between end joints on all adjacent rows. Never waste material; use the left-over pieces from the cuts to start the next row or to complete a row.

Clicking Planks Together

After following the floor to acclimate and ensuring that proper sub-floor requirements are met, you can begin the installation by laying the underlayment. **For rooms having large dimensions exceeding 20 feet by 30 feet, you must plan to have an expansion joint using T moldings for finishing.**

- Step 1: First plank first row: Start at the left-hand corner of the room with the locking system facing you, you must leave an expansion gap of ½, you can wait until the third row before adjusting the ½" expansion joint.

- Step 2: Place the next board even with the first board.

- Step 3: Let the board drop in a single action movement, make sure the long sides are straight. Complete the row in the same fashion.

- Step 4: At the end of the row, measure the board to be cut considering the expansion gap of ½".

- Step 5: Cut the board using a jig saw placing the board face down. Or if using a hand saw, the board should be face up.

- Step 6: To begin the second row, use the cut piece of the last board from the previous row. This board should not be less than half of an original board.

- Step 7: Minimum distance of end joints of parallel board should not be less than ½" the size of a normal size board, for visual effects and stability purposes.

- Step 8: Second board of the second row, place the tight to the end joint of the first board and just drop the board in a single action movement.

- Step 9: Remember to adjust the ½" expansion gap using spacers.

- Step 10: For the last row, cut the last board lengthwise, keeping in mind expansion requirements. Glue the end joints using waterless acrylic glue.

- Step 11: For the last row, after gluing the end joints, add weights on the end joints until glue has dried.

After completing the installation of a row and in order to keep the structural integrity of the locking system, it is mandatory to lock in place the completed row to limit any side shifting movement on the length side. Not following these instructions will cause separation on the end of the flooring strips as the locking system may break, this situation cannot be related to a defective product, it is considered the only reason for separation of the strips and falls in to being an installation problem. The blocks can be removed after completing a few subsequent rows.

Special Installations

- Step 12: For hard-to-reach places, cut off the locking system element using a chisel, put acrylic glue on the adjacent board and push the planks horizontally together. If, necessary place spacers between the last boards until the glue has completely dried.
- Step 13: Water and radiator pipes – Mark the center of where the pipe holes will be cut out, consider the expansion gap requirements, drill the hole and cut the board, install the cut piece and glue in place using acrylic glue.