

INSTALLER/OWNER RESPONSIBILITY

The owner is advised to be at home during the installation for consultation/direction. The owner and installer should discuss installation and layout to maximize satisfaction. If this is not possible, consultation should be done prior to installation. The owner/installer assumes all responsibility for product quality of completed installation.

Perform pre-install inspection. For claims purposes, you are allowed to open up to 4 boxes for product inspection. Do not open all of the boxes. Opening all of the boxes constitutes your acceptance of the product. Inspect all the planks in these 4 boxes carefully. Examine flooring for color, finish, and quality. If you discover that products are defective, or if material is questionable, you should contact the retailer. If you are satisfied, proceed with installation.

Inspect "all" materials carefully before installation, these floors are manufactured in accordance with accepted industry standards, which permit a defect tolerance of 5%. The defects may be of any type, whether manufactured or natural. Order an additional 5% extra for cutting wastage and grading allowances (10% for diagonal installations). Even though our product goes through many inspections before it leaves the plant, it is the responsibility of the customer and installer to perform a final inspection prior to installation. Any laminate warranties that may be offered with this product do not cover materials with visible defects once they are installed. We recommend that you visit the National Wood Flooring Association (NWFA) website at www.woodfloors.org/consumer for installation help and maintenance tips.

Flooring to be installed in one large area should be purchased at the same time. Product purchased at a later time than the first purchase may vary beyond your expectations. Accessories, trims and moldings are manufactured to coordinate with the varied appearances of the floor planks. Any exact matches are coincidental. Non-matching accessories are not defective products.

Please take note of the following: After proper acclimation, open cartons just prior to installation. Keys Collection Laminate Flooring is intended to be installed as a floating floor system. Do not secure flooring to underfloor.

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, unopened package. The storage area must be climate controlled, with a temperature range between 65F and 90F (18C and 32C) and a relative humidity not exceeding 65%. Do not stack pallets more than 3 high. Store pallets so they are protected from forklifts or other traffic. Protect package corners during storage. Always handle

cartons carefully, and do not puncture packaging. Cartons should not be opened until time of installation. Keys Laminate needs to be acclimated to the job site. The customer and/or installer is responsible for wood failure resulting from or relating to subfloor, subsurface, and job site damage or deficiencies after the flooring has been installed. See NWFA guidelines.

JOB SITE CONDITIONS

Job site temperature should be at least 65F and no greater than 100F, and the relative humidity should not exceed 65%. The temperature and humidity must be controlled and maintained within the ranges described above for the life of the laminate flooring. If a single room exceeds 2000 square feet or has a length or width greater than 55 lineal feet, additional expansion gap will be required. T-Moldings should be used.

Subfloor/Underfloor Recommendations and Preparation:

Subfloors must be structurally sound, clean, dry, and smooth. Subfloor variations should not exceed 1/8" in 6' (3.18mm in 1.8m). All high spots must be sanded or ground. Fill low spots, cracks, and depressions with high quality Portland based cement patch. You may install Keys Laminate over existing resilient floor coverings, wood flooring, and ceramic tile (grout joints must be leveled). Appropriate laminate underlayment must be used when installing over all hard surfaces. Do not install Keys Collection products on top of carpeting. Do not install these products in high humidity areas where the floor is usually wet (such as steam rooms or saunas).

Basements and Crawl Spaces:

Concrete slab or ground must be dry. The ground in the crawl spaces must be completely covered using 6 mil black polyethylene. Crawl space clearance between the earth and underside of joists should be no less than 18 inches, and the perimeter vent area should be equal to 1.5% of the total square footage of the crawl space or as mandated by code.

New Construction or Remodel:

All work involving water, such as pouring basement concrete floors, drywall and plasterwork, plumbing, etc. must be completed well in advance of the floor delivery. Ensure that the building is enclosed. Where building codes allow, permanent heating and/or air conditioning systems should be operating at least five days preceding installation (this will promote proper acclimation if necessary) and should be maintained during and after installation. If it is not possible for the permanent heating and/or air conditioning system to be operating before, during and after installation, a temporary heating and/or dehumidification system that simulates normal living (occupied) conditions can enable the installation to proceed until the permanent heating and/or air conditioning system is fully operational.

Moisture Barrier and Moisture Retarder:

Concrete Subfloor: For floating installation, use 6 mil polyethylene film or other means with equivalent permeability.

Overlap the edge seams and tape it together. Extend moisture barrier up to the wall about 1 inch high. When installed on above grade concrete and the moisture content meets standards for concrete moisture, a moisture barrier is not required. For direct glue installation, use a moisture barrier if the moisture level exceeds the requirement (see Concrete Moisture section).

Wood Subfloor: Moisture retarder is optional.

Concrete Moisture:

All concrete subfloors should be tested for moisture content and the results documented. Visual checks are not reliable. Perform tests at locations around exterior doorways, near walls containing plumbing, near foundation walls and in the center of the room. Minimum sample size is 3 samples per 1000 square feet of area and one test for every additional 1000 square feet thereafter. Its moisture content should meet one of the following criteria: 5% when tested using Tramex Concrete Moisture Encounter, Less than 3 pounds per 1000 square feet per 24 hours when using Calcium Chloride test (ASTM F 1869), or 75% when using Relative Humidity Testing (ASTM F-2170). Please note: Concrete moisture content may be acceptable at the time of the test. These tests do not guarantee a perpetual "dry" concrete slab. The concrete slab moisture content can vary at other times of the year. We are not responsible for moisture related damage to installed flooring.

RADIANT HEATED SUBFLOOR

This product can be installed over radiant heated subfloor, provided the surface temperature of the system does not exceed 85°F. Before installing Keys Laminate Flooring over newly constructed radiant heating systems, operate the system at maximum capacity to force any residual moisture from the cementitious topping of the radiant heating system. Then set the thermostat to a comfortable room temperature for the installation. Radiant heating mats are acceptable if designed and warranted to be used with laminate flooring by their manufacturer. Increase temperature gradually after installation. Before installing over a radiant heated floor, turn off heat and wait until the floor has reached room temperature. After installing the floor, return the heat to the previous setting by slowly raising the temperature 2° at a time.

INTERLOCKING FLOORING INSTALLATION

All flooring installations must use an approved underlayment. In a floating installation, a 1/2" expansion gap must be maintained around the perimeter of the room. (See corresponding photos beginning on the next page for a step-by-step illustration of the following floating installation instructions.) After ensuring that proper subfloor requirements are met, you can begin the installation by laying the underlayment. Carefully measure the room to determine squareness of the area and to provide for a "balanced" layout. If the width of the last row of planks will be less than one half of the panel width, adjust the width of the first row of planks by rip cutting the panels. If the wall along the first

row of planks is irregular, scribe the planks to fit the wall and cut. Do not place permanently mounted structures such as kitchen counters/cabinets on the installed floor.

Tools:

Appropriate underlayment; spacing wedges—5/16", utility knife; tapping block; pencil; tape measure; carpenter's square; transition moldings; hand or power jamb saw; circular or miter saw; drill; chalk line; safety glasses*.

Always wear safety glasses when using a hammer or power equipment. Follow safety instructions and MSDS Data Sheets. Don't forget to order moldings that blend with the flooring. Before installing the first panel, select a dozen or more panels that closely blend with the molding. Remove existing wall base, trim, and transition moldings. Measure out the entire work area. Undercut all door casings so the new flooring will fit underneath. Use a scrap piece of the new laminate flooring as a guide. Make the cut using a hand or power jamb saw. Be certain to allow enough room under the casing for an expansion gap. Inspect each plank before installing it. Remove any manufacturing residues from the tongue and groove before installing. Determine in which direction the panels will be laid. As a general rule, the long dimension of the panels should be laid parallel to the longest wall. When possible lay out panels parallel to the light coming in from windows. A minimum 5/16" expansion gap must be provided at all walls and fixed vertical surfaces. When installing in a bathroom the expansion gap must be filled using 100% silicone caulking compound. Additionally, all exterior expansion gaps as well as the gap around the toilet flange must be filled. Make sure the last row of panels to be laid in the work area will be more than 2" wide. If not, the first panel to be laid in the work area must be cut to compensate the difference on the last panel. Cover entire installation area. Cover entire installation area with the appropriate underlayment. Install one sheet net along the starting wall. Unroll only one sheet at a time during panel installation to prevent damaging the underlayment. Once the first sheet of underlayment is covered with laminate flooring, install the second sheet. Do not overlap sheets. Butt the two edges of the sheet together and seal with sealing tape or duct tape. Always use appropriate underlayment; never install laminate flooring directly over exposed substrates.

Transition Molding:

Floating installation, transition T-molding is required in the following cases: floor spanning greater than 30 feet in length or width; wall openings-with or without door. Note: Floor areas interrupted by wall sections extending out of the wall; floor areas which are not rectangular may experience buckling or gapping if there is excessive floor expansion or shrinkage.

Valinge Click Lock Technique:

1. Do not hammer the short ends of the planks. 2. This description is for installation from left to right. Remove the tongue on the first row of the planks to provide for a solid edge

at the wall juncture. 3. Drop-Lock method to join the short ends in the row. Place the first panel flat on the floor with the plastic clip end on the right side. Line the left end of the right end of the previous plank. Start with the back side, gradually lower the plank pushing the clip back in the process. When the next plank is completely flat, the ends will lock. 4. Angling method to join long ends between rows. Position the tongue side of the panel into the groove of the previous row at a 20° or 30° angle. Move the panel gently up and down while exerting pressure toward the first panel. The panel will automatically lock into place.

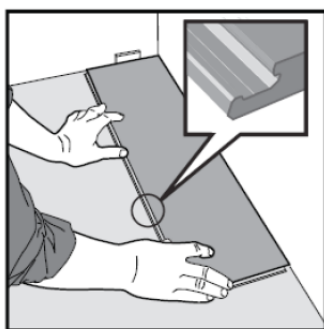


Figure: 1

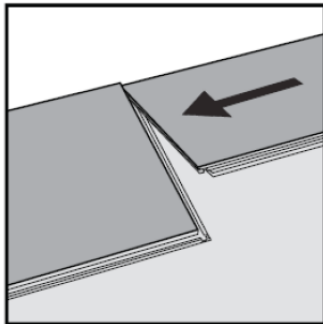


Figure: 2

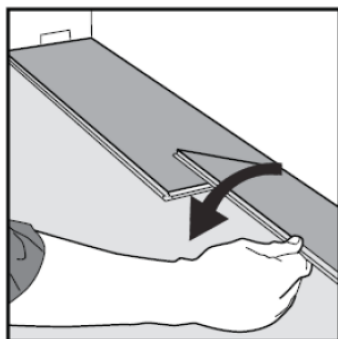


Figure: 3

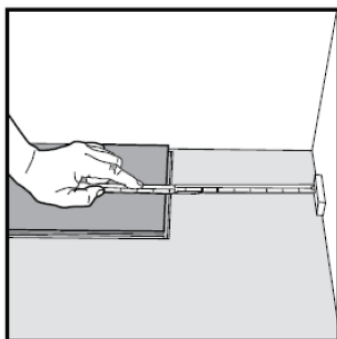


Figure: 4

Fig.1) Start at the left hand corner of the room with the locking system of the board facing you, there must be an expansion gap all around the perimeters of the floor of 1/2". Fig.2) Place the next board even with the first board. Fig.3) Let the board drop in a single action movement, make sure the long side of the boards are straight. Complete the row in the same fashion. Fig.4) At the end of the row, measure the board to be cut considering the expansion gap of 1/2".

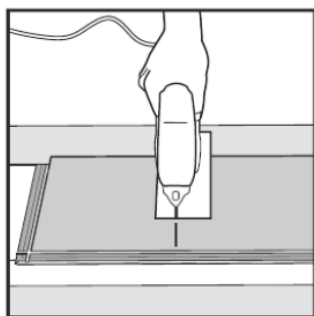
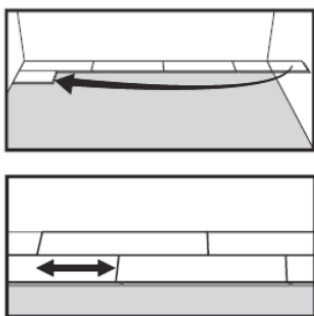


Figure: 5



Top Figure: 6, Bottom Figure: 7

Fig.5) Cut the board with a jig saw, placing the board face down. Or if using a hand saw, the board should be face up. Fig.6) To begin in the second row, use the cut piece of the last board of the previous row. The first board should not be much less than half size of an original board. Fig.7) Minimum distance of the end joints of parallel boards should not be less than 1/2 the size of a normal size board for visual purposes and also better stability.

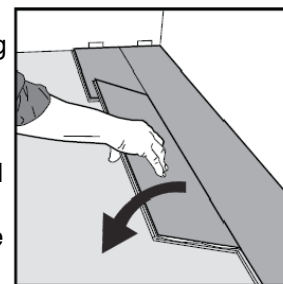


Figure: 8

Fig.8) Second board of the second row, place the board tight to the end joints of the first board and just drop the board in a single action movement.

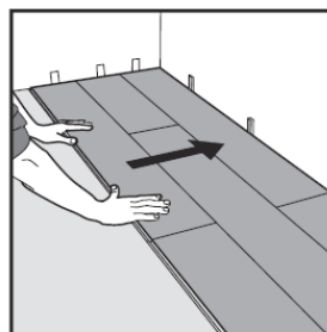


Figure: 9

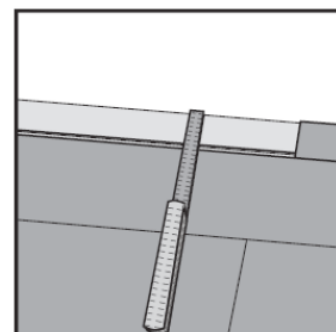


Figure: 10

Fig.9) Remember to adjust the 1/2" expansion gap using spacers. Fig.10) For the last row, cut the last board lengthwise keeping in mind expansion requirements. Glue the end joints using acrylic waterless glue. For the last row, after gluing the end joints, add weight on the joints until glue has dried.

Special Installation and Tips:

For hard to reach places, cut off 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 board and the wall until glue has completely dried. After completion of each row, use a strip that you will have cut on its length to half, that you will be using as a tapping block, keep the male side intact. For every row, you can lightly tap every strip to make sure that all boards are properly and tightly locked in place. You should not see any space between the rows. You can use the floor right after installation is completed.

MAINTENANCE GUIDELINES

Daily Maintenance:

Sweep, dust mop, or vacuum your floor regularly to remove any particles that could cause abrasion or scratch your floor. CAUTION: Vacuums with a beater bar or power rotary brush head can damage a floor and should never be used. Use a damp mop to remove spots and soil. Apply appropriate cleaning solution to the cleaning cloth/mop. Do NOT apply directly to the floor. For lightly soiled areas, clean with distilled water. For moderately soiled areas, use a mild solution of isopropyl alcohol

and distilled water. Isopropyl alcohol is commonly referred to as rubbing alcohol and is sold in 50% to 70% concentrations. This product should be diluted by mixing one part alcohol and 2 parts distilled water. For tougher spots, use a higher concentration of isopropyl alcohol and distilled water. For extreme cases, a solution of nail polish remover (acetone) and distilled water can be used. For best results, clean the floor in the same direction of the planks. When the cleaning cloth/mop becomes soiled, rinse or replace it with a clean one. Following up with a clean, dry cloth will remove residual streak marks and spots. Do NOT leave any amount of liquids (water, juice, soft drinks, spills, etc.) on the floor. Clean any wet spots immediately. Do NOT use a steam cleaner. Do NOT use a wet mop or douse floor with water or liquid cleaners. Liquid can seep between the cracks and cause moisture damage. Do NOT use any cleaning agents containing wax, oil or polish. Left over residue will form a dull film. Do NOT use steel wool or scouring powder which will scratch the floor.

Preventative Maintenance:

Protect your floor when using a dolly for moving furniture or appliances. Protective sheets and/or plywood may be needed. Never slide or roll heavy furniture or appliances across the floor. Place protective pads beneath furniture legs and other heavy objects. Avoid excessive exposure to water from being tracked in during periods of inclement weather. Minimize abrasive material and dirt by placing mats on both sides of exterior doors and by using area rugs in high-traffic areas. Rearrange furniture and rugs periodically to avoid uneven color and shade changes from light exposure. Use protective mats beneath rolling chairs and keep furniture casters clean. Keep pets' nails trimmed. Remove shoes with cleats, spikes or exceptionally pointy heels before walking on the floor.

Climate Maintenance:

Care should be taken to control humidity levels within the 35%-55% range. Dry Climates: A humidifier is recommended to maintain humidity levels. Wood stoves and electric heat tend to create very dry conditions during the winter months this also will cause shrinkage in flooring. Humid, Wet Climates: By using an air conditioner, heater, or dehumidifier, proper humidity levels can be maintained to prevent excessive expansion due to high moisture content.

Floor Repair:

Very light and small surface scratches can be repaired with a staining "touch up" pen of the appropriate color. Very deep scratches may require the replacement of the planks.