



Installation Instructions

Premium Vinyl Plank

Polaris, Courtier



Attention

Before starting installation, read all instructions thoroughly. Should any questions arise, please contact your local Hallmark Floors dealer or phone Hallmark Floors direct at 888 551 0888. Instructions are available at www.hallmarkfloors.com. Instructions are also available via cell phone. All installation instructions must be followed for warranties to be considered valid. Pre-inspect the job site prior to delivery of the floor to ensure the structure is suitable for luxury vinyl flooring installation using the following guidelines

Owner/Installer Responsibility

1. Inspect all materials carefully prior to installation. Warranties do not cover materials with visible defects once they are installed. Installation constitutes acceptance.
2. Inspect the luxury vinyl flooring in well lighted conditions to ensure proper identification of any potential problems. Carefully inspect the flooring for grade, color, finish, and quality. If the flooring is not acceptable, contact Hallmark Floors' distributor and arrange shipment of replacement material. Defective product will be replaced. Material that is subjectively viewed as unacceptable but falls within Hallmark Floors' grading norms will not be replaced.
3. Prior to installation of any flooring, the installer must ensure the job site and sub floor conditions meet the requirements specified in these instructions.
4. Luxury vinyl flooring installation should be one of the last items completed on the construction project. Limit foot traffic on the finished luxury vinyl plank/tile.

Storage & Handling

Handle and unload luxury vinyl flooring with care. Store in a dry place. Make sure to provide at least a 4" space (a dry pallet with a solid plywood top that provides enough clearance under boxes for proper air movement). Prior to delivery of flooring, outside doors and windows must be in place. All concrete, masonry, plastering, and other "wet" work must be complete and thoroughly dry. Roofing and the exterior shell of the structure must be finished and weather tight with doors and windows installed. The wall coverings should be in place and all painting completed—except for the final coat on the base molding. Room temperature and humidity should be consistent with year-round conditions for at least one week prior to installation. When possible, install base molding after floor installation is complete. Flooring should be stored and installed in climate constant or climate controlled indoor location 55°F TO 85°F and between 30 to 50% relative humidity. It is recommended to store product in a controlled environment 48 hours prior to installation.

**ATTENTION: Exposure to sunlight and other heat sources may affect the performance and installation of the floor.*

Pre-Installation Inspection

Visual Inspection

The first inspection is visual and basic. Is there water in the building? Are there uncovered South/West facing windows or sliding glass doors?

Climate Control

If heating and/or air conditioning with proper humidity controls are in operating condition, they need to be turned on. If it is not possible for the permanent system to operate, a temporary system that provides proper temperature and humidity conditions must be in place and remain in place until permanent climate and humidity control is operational. Temperature of 60°-80°F must be maintained.

Install Flooring Last

Luxury vinyl should be the last trade in the house (before base boards are installed). All concrete, masonry, plastering/drywall, texturing, and painting primer coats are completed. Do not install in direct sunlight.

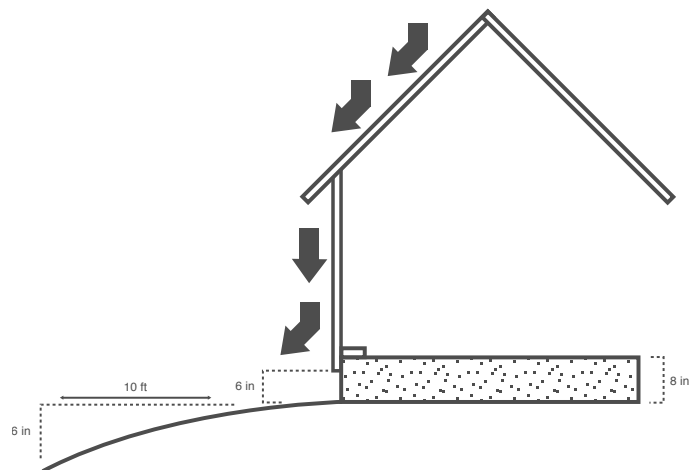
Covering the floor while wet trades are in the house is not recommended. Moisture can pull into the paper or be trapped under the surface of materials used to cover the floor. Paper coverings also allow dents and scratching to occur. Coverings held in place for more than 24 hours by blue tape can damage the floor. The adhesive in tapes contain Phthalates /plasticizers that have the ability to penetrate floor finishes and bond with the finish at the molecular level presenting a risk of pulling/damaging the finish when the tape is removed.

Hallmark Floors recommends that built-in cabinets and built-in furniture be installed before installation of the floor. This prevents damage to the flooring and makes potential flooring repairs simpler to perform.

Exterior Checks

1. Is exterior soil elevation 6" below edge of flashing?
2. Does exterior slope away from foundation at a rate of 6" drop in 10' for soft-landscaped areas and 3" drop in 10' for hard-paved areas?

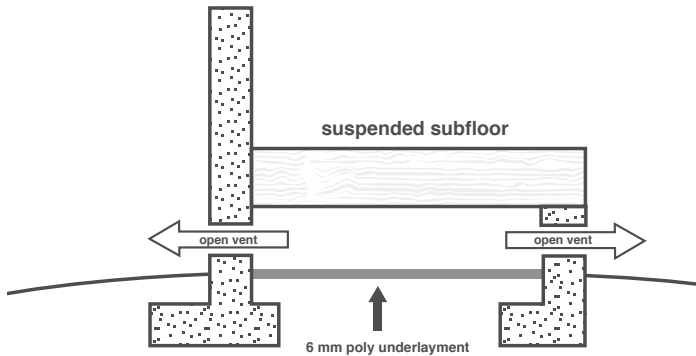
NOTE: Proper drainage away from the structure is absolutely critical to ensure weather-tight conditions and crucial to proper luxury vinyl flooring performance. If structure is near a hill, the lot should be graded with a swale to move moisture off the lot and prevent it from coming in contact with the foundation.



Crawl Space Ventilation

Crawl space earth (or thin concrete slab) should be covered 100% by a vapor retarder of black polyethylene (minimum 6 mil) or any recommended puncture-resistant membrane, such as Class C meeting ASTM D1745. Check local codes for any additional requirements.

Size of available vents should equal to 1.5% of the square footage within the crawl space. Relative humidity should be consistent with interior of home. Moisture content of sub floor should not vary more than a 2% MC from the top of the sub floor to the bottom.



It may be necessary to install temperature/humidity activated exhaust fans to create more air movement in the crawl space. Uncontrolled humidity and moisture in crawl space will lead to mold and damage to the structure, as well as the luxury vinyl floor. In these events, a contractor specializing in dehumidifying systems will need to be contracted to keep crawlspace humidity within proper norms. This is more likely in high humidity areas.

Ensure that clothes driers are properly vented to the outside of the foundation. Check for signs of plumbing, both pressurized and non-pressurized/drain leaks.



NOTE: Completely sealed crawlspaces (no exterior cross-ventilation) require a dehumidification system as part of the sealed crawlspace design.

Basement Moisture & Humidity Control

Basements should be completely weather tight and have proper drainage away from the foundation walls in place to ensure that the basement remains dry.

1. Rain gutters must be in place to carry moisture away from the house. French drains are recommended, and basement walls should be properly sealed.
2. Relative humidity of basements should not be more than 10% higher than the upper floors.
3. Humidity control of the basement is vital to help control mold and prevent damage to the structure and luxury vinyl flooring.
4. Basement walls should be inspected for cracks and excessive moisture content.
5. Drains must be placed at basement windows.
6. Direct sprinklers and irrigation systems away from the foundation. Sprinklers spraying the foundation edge can lead to moisture intrusion into structure. Drip irrigation systems for plant beds is recommended.

Sub floor Moisture Testing CONCRETE

Since luxury vinyl and premium vinyl flooring are not compatible with wet conditions. The combined, proper application of Hallmark 2 Sealer and Hallmark 3 or adhesive carries specific moisture tolerances for a moisture warranty.

ROLLER APPLICATION: Up to 18 lbs. on a Calcium Chloride Test and up to 97% RH (In-Situ Probe).

HALLMARK #22 TROWEL: Up to 25lbs. on Calcium Chloride Test and up to 100% RH (In-Situ Probe).

Hallmark Floors does not offer a moisture warranty against moisture related issues or related damage under warranty, unless our system is used. (See Hallmark Floors Maintenance & Warranty Guides).

NOTE: Due to the porous nature of concrete, vapor emissions are subject to change over the lifetime of the installed floor. Slab moisture emissions are a common cause of damage to vinyl floors. Due to the potential for concrete moisture emissions to increase/decrease over time, and the absence of moisture warranties for vinyl flooring, using Hallmark 2 Sealer vapor abatement system is prudent.

Hallmark Floors' vapor abatement system or offers moisture warranties for moisture abatement systems that is conditional. Follow the directions closely to ensure compliance and full warranty coverage. Proper spread rate and coverage are very important.

ADDITIONAL NOTE: Hallmark Floors makes no guarantees regarding the performance of any adhesive/vapor abatement system other than our own.

The installer is fully responsible for proper installation, and the moisture warranties are fully the responsibility of the moisture abatement system manufacturer chosen for the job.

Industry Standards

Industry standards use the following test methods to determine optimal conditions for installation and performance of a hardwood floor. Some adhesive manufacturers offer systems that create a vapor barrier to protect the luxury vinyl and premium vinyl flooring from moisture emissions coming up through the slab. Many adhesive manufacturers require the below listed tests to be performed prior to installation of the floor: *Carefully read and follow the adhesive manufacturers instructions.*

CALCIUM CHLORIDE: ASTM F1869

Under ideal conditions, the slab should not be emitting more than 3 lbs. per 1,000 square feet per 24 hour period. Carefully follow the instructions in the test kit to ensure that you get accurate results.

NOTE: The slab emissions can vary based on soil humidity and room temperature. Consult adhesive manufacturer's directions for the moisture abatement system they recommend.

HUMIDITY PROBE & DIGITAL METER: ASTM F2170

Widely used in Europe, this test determines the amount of humidity in the slab. This is an effective way to determine a slab's potential for emitting moisture. Follow all meter manufacturer's guidelines for performing testing. Under ideal conditions, the slab readings should be 75% RH.

CAUTION: Post Tension slabs require special care to avoid cutting cables in slab. Cutting post tension cables can cause serious structural damage and potential fatalities.

New concrete slabs require a minimum of 60 days drying time before covering them with a luxury vinyl or premium vinyl floor. The slab must be fully cured. Slab must be comprised of Portland-based mix with 2,500 PSI of compressive strength.

Sub floor Preparation CONCRETE

Glue down application over gypsum or lightweight concrete mixes of lesser strength is not acceptable. (See floating installation section for installation over lightweight substrates).

Remove all paint, oil, existing adhesives, wax, grease, dirt, sealers, and curing compounds. Do not use solvent-based strippers under any circumstances because residual solvents can prevent the satisfactory bonding of the vapor abatement system. It is important to ensure a long lasting bond between the adhesive, the concrete, and the boards.

All sub floors must be clean, smooth, and flat within 3/16" in a 10' radius or 1/8" within a 6' radius. Dust, scale, old adhesive, and asphalt cut-back adhesive must be removed.

CAUTION: test cut-back adhesives for asbestos content. If the cut-back contains asbestos, contact an asbestos abatement company for professional removal.

The surface must be free of paint, grease, drywall, curing/sealing compounds, existing resilient floors, engineered hardwood floors, wax, oil, alkali and any other foreign material that would negatively affect the bonding of the vapor abatement system.

Use sanding system with 20 grit # 3-1/2 open-face paper to remove loose, flaky concrete. For heavy surface contamination, it may be necessary to bead-blast the concrete surface.

Sub floor tolerance for a flat surface is 3/16" within a 10' radius and 1/8" in a 6' radius. These are widely accepted industry standards. Use a straight edge to determine if sub floor requires grinding or filling.

All sub floor patching and leveling should be done with a quality, water resistant, non-shrinking Portland cement patch. Concrete floor must be smooth and flat to prevent telegraphing imperfections in the concrete. NOTE: Be sure to use Portland based patch and levelers on Portland based slabs and Gypsum for Gypcrete. Follow all manufacturer's guidelines for those products.

Wear appropriate NIOSH designated dust mask to reduce risk of dust inhalation. Wear proper eye protection and avoid prolonged contact with eyes and skin. In the event of eye irritation flush with water for 15 minutes and seek medical attention!

Hallmark Floors is not responsible for any movement in expansion joints in concrete slab, nor any performance issues related to the sub floor.

CAUTION: ASBESTOS

State and Federal agencies have determined that asbestos is a respiratory carcinogen. Avoid sanding or scraping of old vinyl, linoleum, and VCT as they may contain asbestos. Take proper precautions and contact an asbestos abatement company to remove any old vinyl or vinyl tile floors containing asbestos. Cut-Back adhesive and other types of adhesives can also contain asbestos.

Do not sand, sweep, dry or wet scrape, mechanically chip, bead blast, or pulverize existing resilient flooring, the felt, lining, paint, black asphalt cutback adhesives, or other existing adhesives. These products could contain asbestos fibers or crystalline silica.

Breathing dust from these sources increases your risk of cancer and respiratory diseases. If you smoke and are exposed to asbestos fibers, you are at greater risk of serious damage to your health.

If you are not sure that the product being removed is asbestos free, assume that the product contains asbestos or crystalline silica. Regulations in your area may require you to have the material tested to determine if it contains asbestos. Check the Resilient Floor Coverings Institutes' recommendations for removal of existing resilient floor coverings.

Chemical adhesive removal products must not be used to prepare the slab. Use of such chemicals will void the warranty on all Hallmark Floors products

Installing over Existing Floor Coverings on Concrete

Perimeter-glued resilient vinyl, VCT and rubber tiles are not acceptable underlayments and must be removed.

Sub floor Moisture Testing wood

Probe-type (pin) meters are considered the best method of testing.

Remember: the top and bottom of the sub floor should vary no more than 2%. Wood substrates must have a moisture reading of no more than 10% when using Lignomat, Tramax, Delmhorst, or equivalent moisture meter.

Sub floor Preparation wood

1. Wood sub floors with a crawlspace must have a minimum of 18" between the bottom of the joists and the surface of the soil. Soil must be covered with 6-8mil black plastic as vapor barrier. Plastic must be overlapped at joints by a minimum of 8 inches and fully taped with a high quality moisture-proof duct tape.
2. All sub floors must be clean, smooth and flat within 3/16" in a 10' radius and 18" in a 6' radius. Dust, scale, old adhesive, and asphalt cut-back adhesive must be removed. The surface must be free of paint, grease, drywall, curing/sealing compounds, existing resilient floors, engineered hardwood floors, wax, oil, alkali, and any other foreign material.

CAUTION: Test cut-back adhesives for asbestos content. If the cut-back contains asbestos, contact an asbestos abatement company for professional removal.

3. Solid Board Sub flooring should be 3/4" x 5 1/2" (1" x 6") group 1 dense softwoods (SYP, Doug Fir, Larch, etc.), #2 common, kiln-dried. Solid board sub flooring should consist of boards no wider than 6 inches, installed on a 45° angle, with all boards ends full bearing on the joists and fastened with a minimum 8d rosin-coated or ring-shanked nails, or equivalent. Solid board sub flooring that is uneven at edges should be repaired and sheeted with:

GLUE DOWN - 1/2" (15/32", 11.9mm) Baltic Birch 1 plywood sub floor panels, 4' x 8' sheets, and should be installed running cross-truss/joist.

FLOATING - 1/2" (15/32", 14mm) CD exposure 1 plywood sub floor panels, 4' x 8' sheets.

Glue top and bottom layer together with construction adhesive and screw into the truss/joist system every 12". Additionally nail (ring shank) or staple layers together on a minimum 12" grid pattern.

4. Plywood/OSB Sub floors

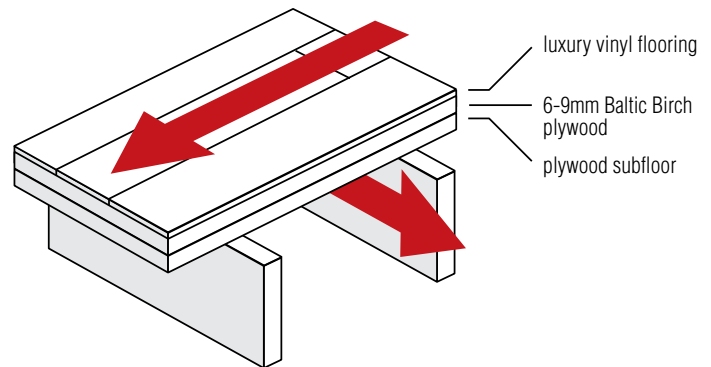
- a. Truss/joist spacing of 16" (406cm) o/c or less, the industry standard for single panel sub flooring is a minimum of 5/8" (19/32", 15.1mm) CD Exposure 1 plywood sub floor panels or 23/32" OSB Exposure 1 sub floor panels, 4' x 8' panels. Place 6-9mm Baltic Birch plywood on surface. (For Glue Down applications only).
- b. Truss/joist spacing of more than 16", up to 19.2" (488mm) o/c, the standard is a minimum 3/4" (23/32", 18.3mm) tongue and groove CD Exposure 1 plywood 4' x 8' sheets glued and mechanically fastened. Place 6-9mm Baltic Birch plywood on surface. (For Glue Down applications only).
- c. Truss/joist spacing of more than 19.2" (488mm) o/c up to a maximum of 24" (610mm) o/c requires a minimum 7/8" tongue and groove CD Exposure 1 plywood sub floor panels, 4' x 8' sheets, glued and mechanically fastened, or nominal 1" OSB Exposure 1 sub floor panels glued and mechanically fastened –or two layers of sub flooring. Place 6-9mm Baltic Birch plywood on surface. (For Glue Down applications only).

5. Joist Cross-Bracing

A sub floor that is not thick enough to support the span of the joists will cause unacceptable sub floor deflection. An alternative to adding additional plywood on top of the sub floor would be to cross-brace between the joists. The cross-bracing would be done at the appropriate distance on center to meet specification and bring the deflection within proper tolerance. Check with the joist or truss manufacturer to determine if cross-bracing is allowed with that system. Should it not be compatible with the joist or truss manufacturer, sheeting the sub floor with a second layer of CD or better grade plywood would then be the only option.

DIRECTION OF INSTALLATION IN RELATION TO JOIST DIRECTION.

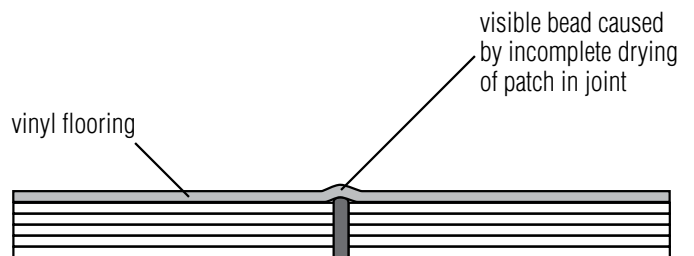
The best application is at a 90° angle across the joists. This provides for best stability of the floor. As an alternative, the floor can be installed at a 45° angle to the joists. The floor cannot be installed in the same direction as the joists without installing an additional sheet of plywood on top of the existing wood sub floor.



6. Sub floor Prep: OSB & Sub floor Rated Plywood are acceptable for use under Hallmark Floating/Locking. All nails must be countersunk, all panel edges must be sanded flat. Sub floor joints must be feather filled with a Portland based patch and allowed to dry.

The patch may be 1/4" deep or more in the joint between two panel edges. Note that it will not dry as quickly as a surface patch.

NOTE: If sub floor is too badly damaged or sanding flat makes the sub floor too thin, sheet with (15/32", 14mm) CD Exposure 1 plywood sub floor panels, 4' x 8' sheets. The existing sub floor would not be feather filled but the sheeting would.



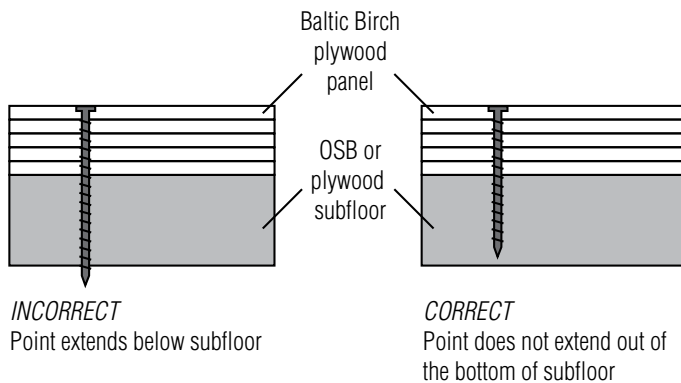
Not applicable to PVP

- Should sheeting be needed, use plated ring shank underlayment nails with a 3/16" diameter head or double coated chisel point staples with a 1/4" maximum crown. The fastener length should be selected so that the point will not extend beyond the bottom of the sub floor.

Do not use uncoated, cement coated, or rosin coated fasteners as they may contribute to staining. Ensure the panel is in firm contact with the sub floor. Always have your body weight on the panel being fastened.

CAUTION: Some nail types, i.e. common steel nails, can cause discoloration of the vinyl floor. Gluing down with construction adhesive and screwing plywood panels into joists, can cause discoloration issues. Solvent based construction adhesives can stain vinyl floor covering. Use of solvent free construction adhesives is therefore recommended, to avoid floor stain issues

NAIL HEAD SLIGHTLY COUNTERSUNK



- Lightly butt plywood underlayment panel edges together. Do not force panels together, but do not leave a gap. Leave a minimum gap of 1/4 inch and a maximum gap of 1/2" between the plywood underlayment panel edges and the walls for expansion.
- Cut plywood underlayment panels as necessary and lay out factory edges to factory edges. Layout any edges with job site cuts towards the wall. Make any long straight cuts from the underside of the plywood underlayment panel using a circular power saw with a fine toothed blade. Adjust the blade to extend not more than 3/8" through the plywood underlayment to minimize splintering.
- All fasteners should be countersunk slightly below the surface of the new underlayment. Adjust air pressure on air staplers to a minimum to avoid staple blow through. Fill with feather patch approved for such use, allow to dry and sand nail holes and joints to prevent telegraphing through surface of vinyl (Not applicable PVP). Avoid over-sanding and cupping of joints.
- Once the patch is dry, re-sand all areas with a low-speed rotary sander. If necessary, patch again, allow to dry, and re-sand with a low-speed rotary sander (Not applicable PVP). Proceed with the installation according to Hallmark Floors' and adhesive manufacturer's instructions. Keep the underlayment clean and dry until luxury vinyl flooring is ready to be installed. If necessary, cover Baltic Birch plywood underlayment with protective paper until ready to install luxury vinyl flooring.

Clean the Sub floor

After all prep work is completed, sweep and/or vacuum the sub floor. Dust and dirt can affect the adhesive's ability to adhere to the sub floor.



Other Substrates QUARRY TILE, TERRAZZO AND CERAMIC TILE.

Any embossing or grout joints need to be filled with a Portland based cementitious patch. Substrates must be firmly attached to sub floor. Hallmark Floors makes no warranties in regards to performance or suitability of use of any sub floor or substrate.

The surface must be sound, tight, and free of paint, oil, existing adhesives, wax, grease, and dirt.

Terrazzo and ceramic tile must be sufficiently scuffed to assure adhesion. Portland based cementitious levelers must be used to comply with flatness requirements of 3/16" in a 10' radius or 1/8" in a 6' radius. See adhesive/cementitious levelers manufacturer's guidelines.

Existing vinyl, tile, or terrazzo are not considered to be vapor barriers and can still transmit unacceptable moisture levels which can become trapped under a vinyl floor. This is true of both concrete and wood sub floors. Wood fibers, dust, drywall, latex paint, or other organic material under the floor can promote fungal growth, degradation of adhesives, and dimensional instability in the plank/tile. Therefore, preventing excessive moisture under the floor is critical.

Existing hardwood flooring must be removed prior to installation.

Below Grade Installation

A concrete slab is considered below grade when any part of the slab is below ground level. For example, a basement with a walk out is considered below grade. A house cut into a hill is also considered to be below grade if it isn't properly graded to create a drainage swale on the lot. Below grade slabs must be carefully tested. Diligently follow all adhesive or underlayment pad manufacturer's instructions for below grade installation.

Getting Started

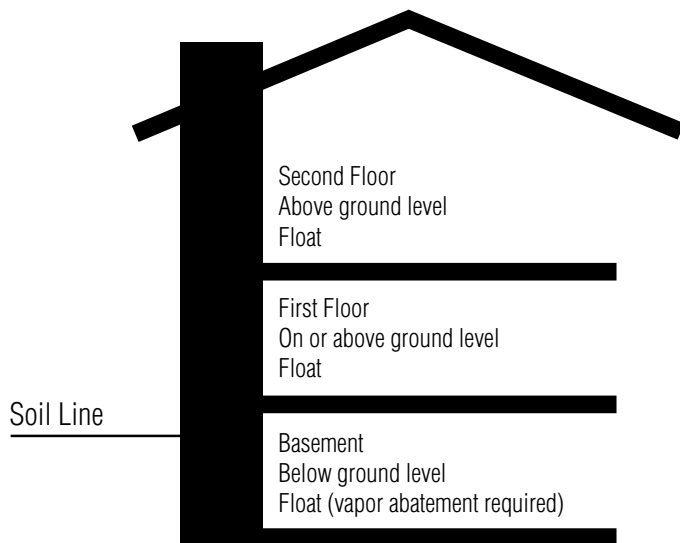
1. Select Installation Type

ABOVE GRADE WOOD SUB FLOOR: Float. Install directly on properly prepared sub floor or use Eternity 1mm high density rubber pad or equivalent.

WOOD SUB FLOOR WITH CRAWL SPACE/ BASEMENT: Float. Install directly on properly prepared sub floor or use Eternity 1mm high density rubber pad or equivalent.

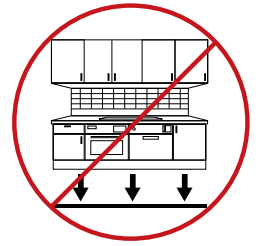
ON/ABOVE-GRADE CONCRETE: Float. Install directly on properly prepared sub floor or use Eternity 1mm high density rubber pad or equivalent.

BASEMENT: Float. Install directly on properly prepared sub floor or use Eternity 1mm high density rubber pad or equivalent. Vapor abatement system required.



2. Cabinets & Appliances

Do not install cabinets on top of floor. Hallmark Floors EZ Loc products are designed to free float on sub floor. Installation of built in cabinets inhibits the ability for the floor to expand and contract freely. Installation of cabinets or other built in applications, on top of floor will inhibit this ability and lead to floor failure. Perimeter gluing is also not recommended for the same reason.

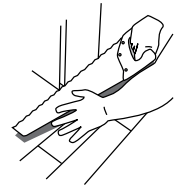


Luxury vinyl flooring should be installed at the same time as carpet and after the following: finishing walls, cabinet installation, appliance installation, tile & counter top installation.

Standard refrigerators and kitchen oven/range are acceptable for placement on top of the luxury vinyl floor. Use caution when moving appliances by using a proper furniture dolly, air sled, 1/8" Masonite with glossy side down, or plastic glides designed for movement of heavy appliances. Failure to follow these precautions will damage the floor.

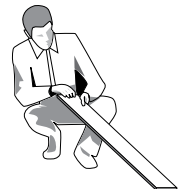
3. Undercut All Door Jambs/Moldings

Remove all shoe and base molding to ensure adequate expansion space. Use scrap piece of flooring to establish height of cut. Make allowances for adhesive or underlayment thickness when establishing height of cut.



4. Visual Inspection of Planks/Tiles

Visually inspect planks/tiles for any defects prior to installation. Verify that homeowner has seen product and approves proceeding with installation of the floor.



5. Open Multiple Boxes

Always work from multiple boxes simultaneously and blend the planks/tiles throughout the installation. This is especially important with mixed production dates. Hallmark has very good color consistency, and mixed production dates are acceptable for installation. Working from multiple boxes/production dates helps achieve a good blend of color.

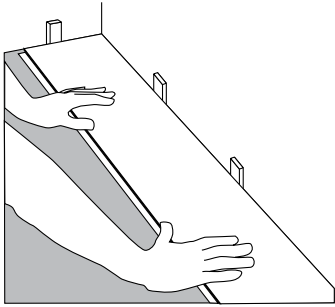
6. Blend Boards to Moldings

Before you get started, open multiple boxes and check how the planks/tiles blend with the moldings. At beginning of installation, set aside those planks/tiles that best blend to the transition moldings on job.

7. Select a Starter Wall

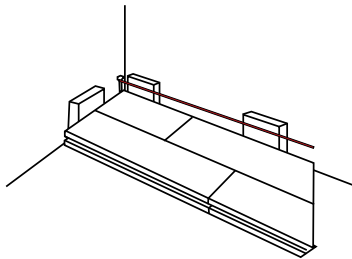
Tip: Select the longest wall in the room and install left to right, starting in the left hand corner. For starting row, use adjustable spacers against side and end walls to maintain ¼" minimum expansion space. Use spacers at both the side and the end of the rows.

NOTE: Start one inch from the wall until first three rows assembled and push in place against ¼" to ½" spacers depending on size of span and width.



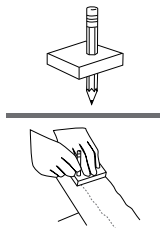
8. Starting Line

For starting row, cut blocks to use against side and end walls to maintain ¼" minimum expansion space. Use spacers at both side the end of the rows. Use of adjustable spacers may be needed to help maintain a straight line.



9. Irregular & Out-of-Square Walls

Scribe cut the first row to match variations in the wall. A scribe can be created by drilling a hole in a scrap piece of wood and inserting a pencil. The starting row can then be cut to compensate for an irregular wall or to help minimize the appearance of an out of square room by splitting the difference between the two walls.



10. Expansion Space

Standard expansion space should be factored at ¼" this will suffice for a floor that does not exceed 25' in span or width. Larger floors can be accommodated with an additional expansion space of 1/16" for each additional 5' of span or width up to 40'.

NOTE: Floors beyond 40' require the use of a T-molding for expansion.

Find areas in the floor where an expansion break can be planned for a large width /span floor.

EZ Loc Floating Installation

Luxury Vinyl:

4MM: SAN SIMEON: standard luxury vinyl underlayment

Premium Vinyl

5.5MM POLARIS: Direct to sub floor or over 1mm Eternity High Density Rubber Underlayment or equivalent.

5.5MM COURTIER: Direct to sub floor or over 1mm Eternity High Density Rubber Underlayment or equivalent.

Before installing any material, plan the layout of the plank or tile joints to avoid lining up on top of the sub floor/underlayment joints. Do not install over expansion joints.

All job site prep instructions from earlier portions of installation instructions apply.

EZ Loc can be installed over existing floor coverings that are firmly attached to sub floor, clean, and flat. *NOTE: EZ Loc cannot be installed over carpet.*

GENERAL INFORMATION

NOTE: Follow instructions 1-11 and all directions listed below.

Installation Tools

Tape measure, pencil, chalk line, table saw, cut-off saw or vinyl guillotine, jamb saw, tapping block, pull bar, spacers, hammer, safety glasses, hearing protection, utility knife, wall spacers, straight edge, broom, speedy square, hardwood floor cleaner, and shop vacuum.

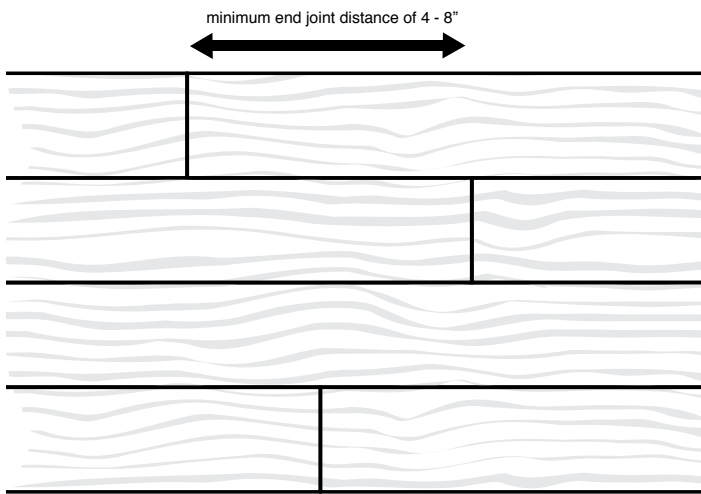
NOTE: Hallmark recommends pattern scribing with utility knife or cutting with a power miter saw or vinyl guillotine cutter.

11 EZ. Measure the Room

Accurately measure the room to determine the center line, and total width of the floor. The width can be divided by the width of the plank. This helps establish how many rows are required. The starting row and ending row can then be trimmed so the width of the starting plank and ending plank can be the same. Once this is known the starting row can be ripped to a narrower width if necessary, to give the floor balance.

12 EZ. Establish End Joint Pattern

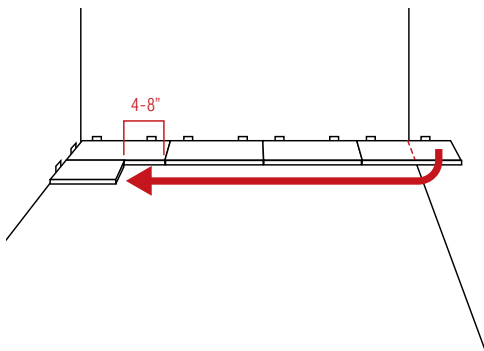
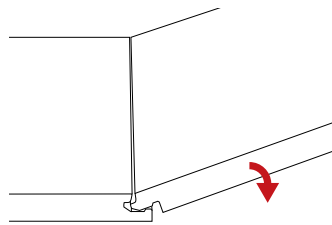
Plank ends should be staggered, randomly to avoid a cluster or stair stepping of end joints. Varying the length of the starter plank will give the appropriate stagger for that row.



13 EZ. Lock in First Row

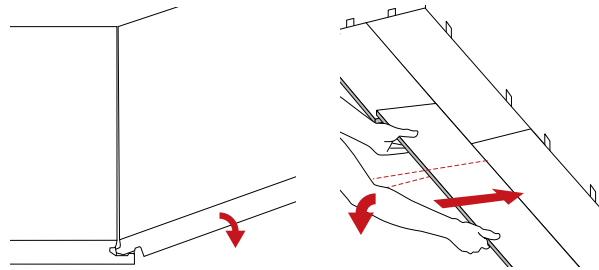
Insert short tongue end of the plank into groove at an angle and drop into place. Continue the process for the remainder of first row.

Use end cut piece from first row to start the second row. End joint spacing must be no less than 4 to 8" apart from rows on either side. Repeat process throughout the floor. Watch carefully to avoid lining up too many of the end joints and setting an obvious pattern.



14 EZ. Placing Additional Planks

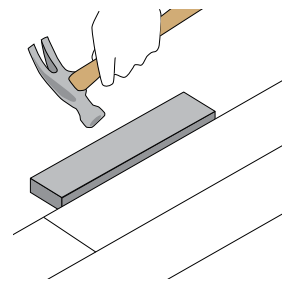
At a slight angle, insert tongue end into the groove end of the previous plank. Get as close to the side of the previous plank as possible. Also at a slight angle, press the side tongue into the groove of the plank next to it. Press gently to engage the planks.



15 EZ. Fully Engage Side Lock

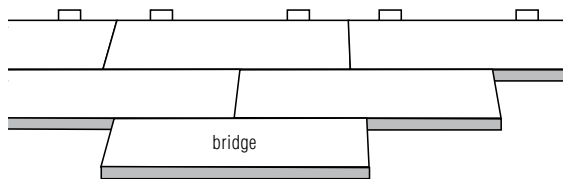
Use a tapping block and hammer, tap the block against the plank edge to fully engage the locking system. Failure to fully engage the locking system will cause the joints to open up later.

CAUTION: Do not strike the edge of the plank or the locking system with the hammer. Direct hammer strikes will damage the edges and potentially the locking system, compromising its integrity.



16 EZ. Bridge the End Joint

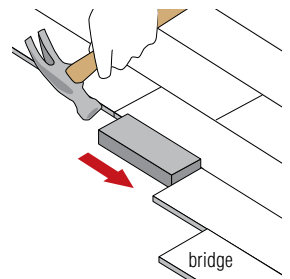
Using a cut piece of approximately 12" to 14" in length, form a temporary bridge next to the end of the plank just installed.



17 EZ. Fully Engage End Lock

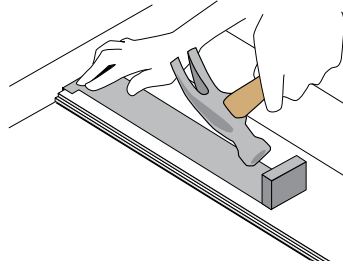
Using a tapping block and hammer, tap the end of the plank edgewise with the block to prevent damage to the locking mechanism and ensure that the locking mechanism is fully engaged.

Do not strike the edge of the plank or locking mechanism with the hammer. Damaged edges are unsightly, and the joint could be compromised.



18 EZ. Place and Secure Row End Planks

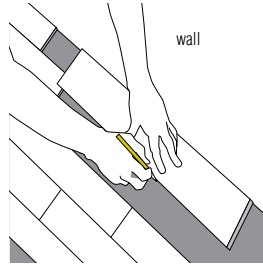
Ensure end joint at end last plank of the row is completely engaged with a pull tool.



19 EZ. Trim Last Row

The last row of planks may need to be cut widthwise to achieve the correct width. The width of the last row must not be less than 2".

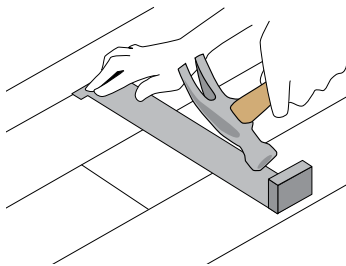
This is accomplished by measuring the room prior to installation and factoring how many rows it will take to complete room (See Step 1 EZ). The starting row can be trimmed to balance out the floor and prevent a cut under 2".



Reverse the plank and place over the opening for the last row. Place spacers against wall (to ensure proper expansion space) place a mark at both ends of the plank to establish a line for cutting.

20 EZ. Secure Last Row

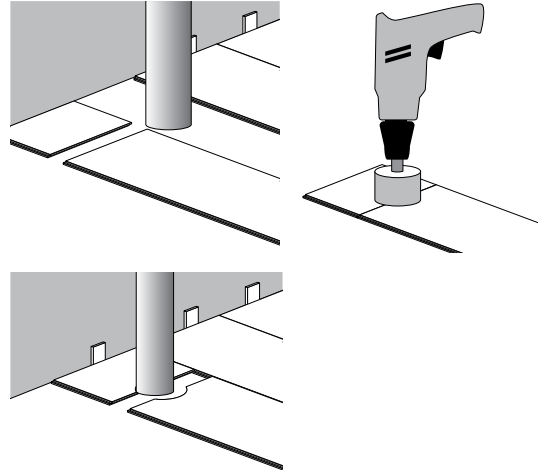
After engaging the side joints in the last row, slightly lift the edge of the plank. Using a pull tool, pull the plank completely into place. Follow up the length of the plank a second time and tap to ensure the joint is completely locked.



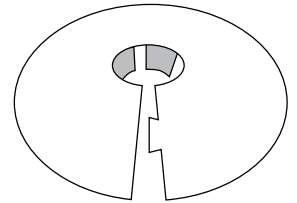
Installing Around Pipes

If the room has pipes or radiators or pipes, drill a hole large enough to fit around them with space for expansion.

1. Drill a hole through an end joint (do not use planks without end locking mechanism). Make sure side and end lock are fully engaged and use temporary bridge and tapping block on sides and ends. Use caution and tap gently on plank edge with block and hammer.



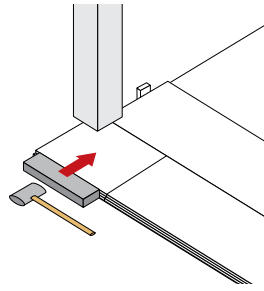
2. Wrap the pipe with a radiator pipe collar to cover expansion space. Plastic collars are available at home improvement stores and plumbing supply stores. Wood collars are specialized and can be located at some hardwood flooring distributors, or specialized wood websites.



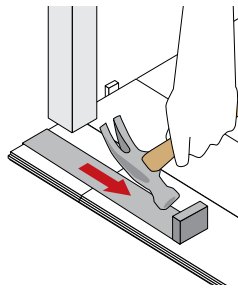
Installing Under a Door Jamb

(with transition moldings)

1. When a row is going to end at a door jamb and a transition molding is going to be used, slide side in place first. Tap together with tapping block and hammer.



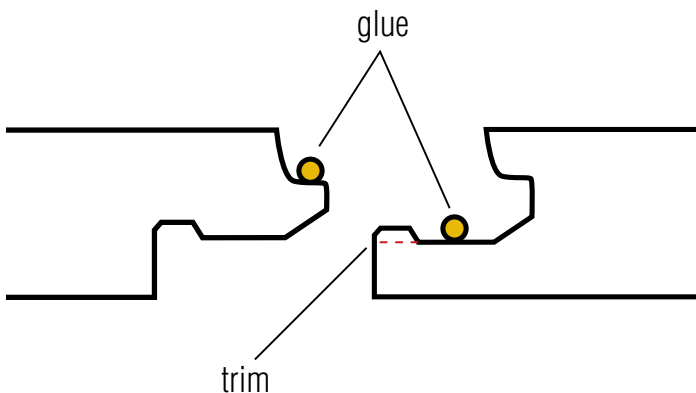
2. Pull tool is used to engage the end joint.



Installing Under a Door Jamb

(without transition moldings)

1. Installation under door jambs will require that the top lip of the groove will need to be modified and reduced in height.
2. Use a small knife plane to shave off the edge of the groove.
3. After shaving the groove, test fit with another board to ensure the boards fit together properly.
4. Once groove side is trimmed and test fitted place a small 1/16" bead of Hallmark Floors EZ Loc Transition Adhesive on the top of the tongue and on newly shaved edge of groove.



5. Adequate expansion space must be in place at door jamb and casings to allow the floor to freely expand and contract. If this is not possible, a T-molding must be used to allow free movement of the floor. (Refer to previous section).

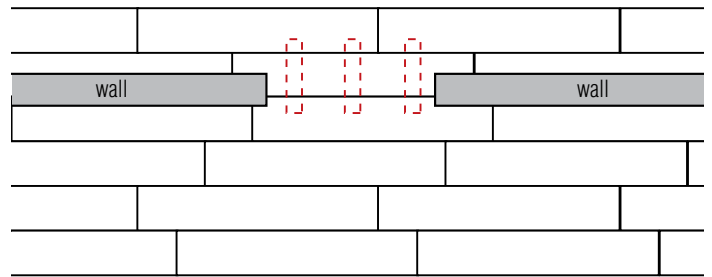
6. To strengthen the joint, strips of high pressure laminate edge banding can be placed at a 90° angle cross-grain on the bottom of the planks. These strips should be as long as two planks are wide. Two 1/16" beads of Hallmark Floors EZ Loc Transition Adhesive should be placed on a 1 1/2" wide strip of edge banding. Standard door requires minimum of three strips.

CAUTION: Do not apply too much glue. This could pin the floor in place with transition adhesive overflow.

NOTE: This method is intended for 5.5mm PVP products only. A small amount of telegraphing may be evident in high traffic doorway. 4mm San Simeon has a higher likelihood of telegraphing.

7. Tape planks together using 3M Scotch Blue Painter's 2080 Tape for Delicate Surfaces. Do not leave in place for more than 24 hours. Weight the joints in place while adhesive dries.

NOTE: All doorways between 48" to 60" must be reinforced as described in items 6 and 7, with strip spacing 3" from the end and spaced every 12". Otherwise, a T-molding must be used.



EZ Loc Glue Down Application

Note on Hallmark Floors Products with EZ Loc: (Locking System)

San Simeon Luxury Vinyl Plank

Polaris Premium Vinyl Plank

Courtier Premium Vinyl Plank

These products will stick to Hallmark 3 and 4 adhesive systems. Glue down of these Hallmark Floors collections is possible. However, installation is very challenging and time consuming process. Proceed at your own discretion. No claims will be honored for additional time required to glue down EZ Loc collections.

Hallmark Luxury Vinyl® is not warranted for glue down to sub floor grade plywood, particle board, O.S.B, Luan or Maranti types of underlayment.

NOTE: Hallmark adhesives will adhere to sub floor grade plywood and to OSB. However, the amount of movement in these products will affect the flooring, and telegraphing issues commonly occur with this type of installation

For glue down applications of EZ Loc, follow all directions in Installation Instructions: Luxury Vinyl Tile & Plank

Premium Vinyl Radiant Heat

All Radiant Heat systems must have failsafe capability to ensure surface temperatures do not exceed 80°F.

Lightweight Concrete/Gypcrete

1. The heating system tubes must be 1 ½" below the surface layer of the concrete slab/thermal mass.
2. 2–3 weeks prior to the installation the thermostat must be set at 70° F, then at 85°F for 3 days. The home should be aired out briefly every day to allow the excess humidity from the thermal mass to exhaust out of the structure.
3. The lightweight concrete moisture content must not exceed 1.5% as measured with a Tramax Moisture Encounter meter prior to installation. Use of Hallmark 1 (in conjunction with Hallmark 3 adhesive) when applied, per instructions, will enable the floor to be glued down to gypcrete.
4. Lightweight concrete/gypsum based thermal mass must have a minimum compressive strength of 2,500 psi. If gluing down with product other than Hallmark 1 Primer and Hallmark 3 Adhesive, see adhesive manufacturer's recommendations for compressive strength.

Wood Sub floor Systems With Aluminum Transfer Components

5. ALUMINUM HANGERS

Aluminum hangers must be .03125"/0.79mm to .0625"/1.58mm thick and have a minimum of ¾" sub floor. Hangers must reach joist to joist 16" to 19.2" on center, and have no gaps between sides and ends of aluminum hangers. A good system also contains insulation to prevent thermal loss and ensure even heating.

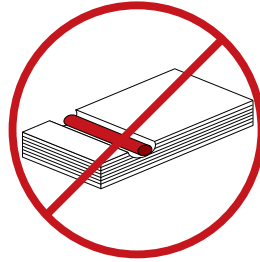
6. DECKING OVER SLEEPERS

Decking must be a minimum of ¾" thick with a minimum ¾" sub floor with an aluminum transfer sheet of .03125"/0.79mm to .0625"/1.58mm in thickness and attached to the bottom of the decking material. Sleepers should be 18" on center. In-floor heating systems must be water-based, low temperature, and must be designed to prevent surface temperature of the floor from exceeding 80° F. All glue down applications on wood sub floor assemblies must be sheeted with at least 6mm Baltic Birch plywood and prepped as described in these instructions.

7. *No electric radiant heat systems are approved for use with Hallmark Floors Premium vinyl flooring!!!*

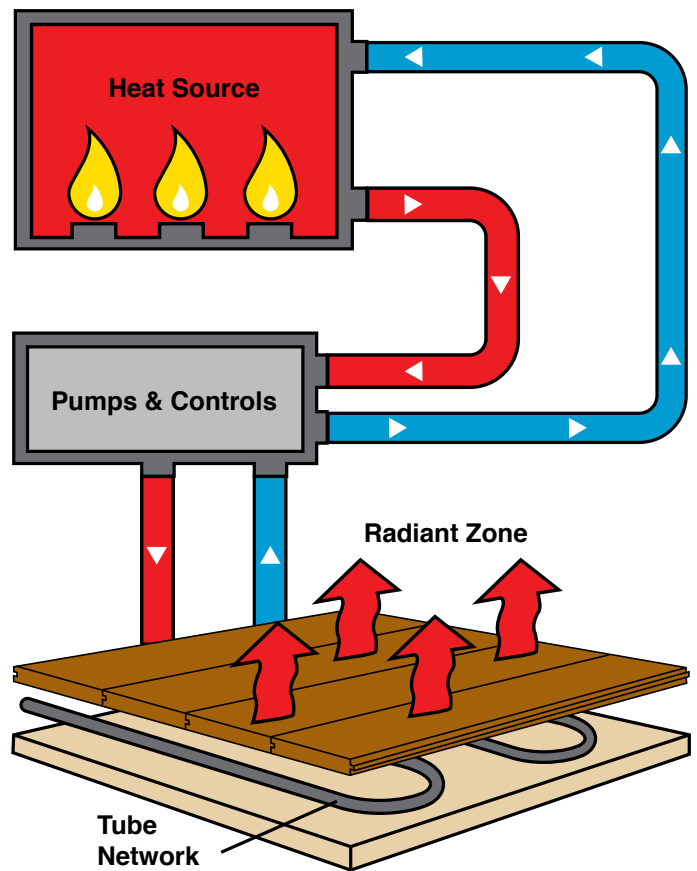
8. Passive radiant heat systems are not suitable for use with Hallmark Floors luxury vinyl flooring. Any approved radiant system must be combined with the ability to move the air in the room for proper heat distribution and to prevent excessive heat at floor level. Humidity controls must be in place to maintain relative humidity within a 30 to 55% RH range.

9. Surface-channeled radiant boards, are not acceptable for use under Hallmark Floors premium vinyl flooring. A minimum of ¾" must be maintained between the vinyl floor and the water tubing. This is not possible with these types of systems. This applies to systems with or without an aluminum transfer sheet.



Sub floor level tolerances listed previously, also apply to radiant heated sub floors.

NOTE: Area rugs placed over radiant heat slab will create heat retention in the floor. This may result in that area exceeding optimum temperature, and causing slightly larger gaps and minor distortions to the floor under the rugs.



NOTE: Diagram is to explain general principles of radiant heat. See Hallmark Healthy Home for full explanation of approved systems and applications.

Vinyl Molding

100% WATERPROOF! No buckling or bowing from water spills or moisture issues.

Types:

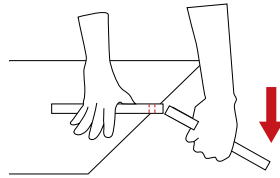
1. Simple Snap Trak installation
2. 72" T-molding
3. 72" Multipurpose reducer
4. 94" Stair nosing
5. 94" Quarter round

Coordinating

The moldings are designed to blend with the vinyl flooring. The same décor vinyl and wear layer that is used for the flooring is used for the moldings.

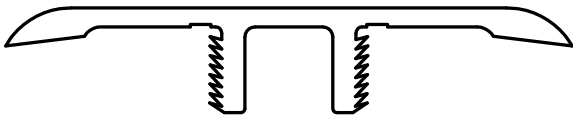
1. Snap Trak (PACKED WITH EACH MOLDING)

Position track $\frac{3}{16}$ " away from vinyl floor. Firmly attach Snap Trak to sub floor using screws and Hallmark Floors EZ Loc Transition Adhesive. Screw track to sub floor. Snap molding onto track. Trak is scribed so it can be snapped to the length required.



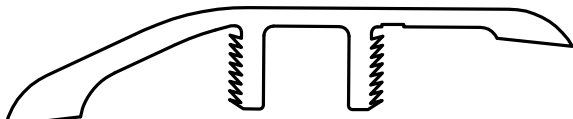
2. T-molding

T-molding is 72" long and transitions different types of flooring of the same height, for example, vinyl to vinyl.



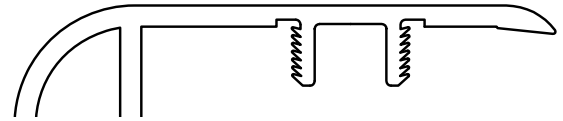
3. Multipurpose Reducer

Reducer is 72" long and transitions flooring of different heights, for example, carpet to vinyl.



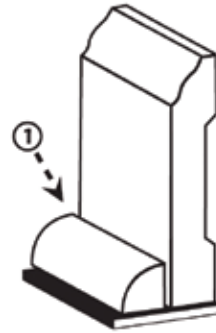
4. Overlap Stair Nosing

Stair nose is 94" long. Any existing tread bullnose must be cut off.



5. Quarter Round

Quarter is 94" long and finishes the perimeter of the floor. Please take notice that the quarter round should be affixed to the vertical surface with pin/finish nails and not affixed to the flooring itself.



Radiant Heat

Sub floor level tolerances listed previously, also apply to radiant heated sub floors.

ELECTRIC RADIANT HEAT SYSTEMS ARE NOT APPROPRIATE FOR HALLMARK FLOORS.

PASSIVE RADIANT HEAT SYSTEMS ARE NOT SUITABLE FOR THE INSTALLATION OF HALLMARK FLOORS. PASSIVE SYSTEMS DO NOT HAVE THE ABILITY TO MOVE THE AIR OR CONTROL HUMIDITY LEVELS.

CAUTION: Surface temperature of the wood floor should never exceed 80° F. Temperature sensors must be integrated into system as a fail safe to prevent excessive heat and damage to the hardwood floor.

NOTE: Area rugs placed over radiant heat slab will create heat retention in the floor. This may result in that area exceeding optimum temperature, and causing slightly larger gaps and minor cracks/splits in the floor under the rugs.

FLOATING INSTALLATION / RADIANT HEAT

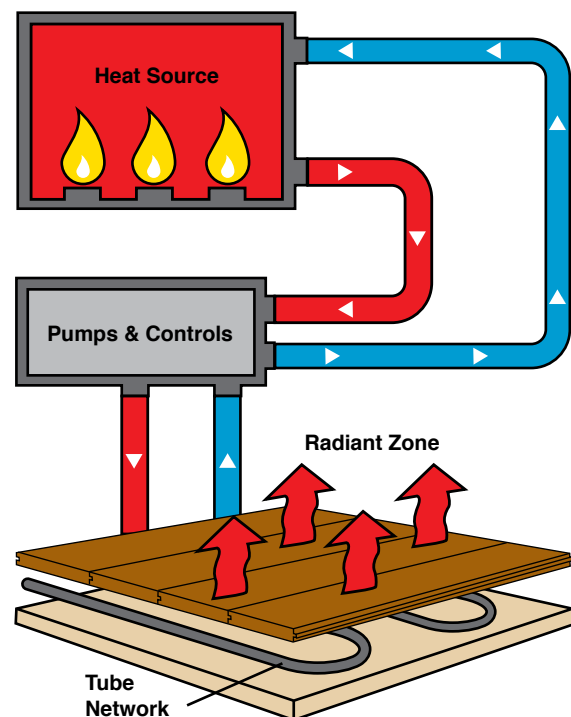
Hallmark recommends Eternity Premium Underlayment pad or comparable pad. The tongue and groove must be glued together using White PVA-D3 (poly vinyl acetate) tongue and groove adhesive.

GLUE DOWN CONCRETE THERMAL MASS / RADIANT HEAT

Adhesive must be approved by adhesive manufacturer for use with radiant heat. Adhesive system must employ a vapor control component designed to be used in conjunction with the adhesive by the adhesive manufacturer.

Thermal mass must be Portland based concrete product and rated at a compressive strength of 2500 psi or greater. Thermal mass with less than 2500 psi compressive strength must use floating installation method unless otherwise specified by adhesive manufacturer. Follow adhesive manufacturers instructions as their psi ratings may be different. Follow all adhesive manufacturer's installation specifications.

Hydronic warm water systems installed in accordance with NWFA specifications are acceptable. Tubing must be a minimum of 1 1/4" below the surface of the concrete thermal mass (no electric matt systems are acceptable). See Hallmark Healthy Home –Radiant Heat Section for additional details.



HYDRONIC SYSTEMS IN A WOOD SUB FLOOR

Assembly must include an aluminum transfer sheet to ensure even distribution of heat. Aluminum tube hanging systems must cover the entire distance between the joists on the bottom of the sub floor.

RADIANT HEAT APPROVED PRODUCTS

Heirloom: All (excluding Hickory)

Hacienda: All (excluding Hickory)

Moderno: All (excluding Hickory)

Alta Vista: All

Monterey: All (excluding Hickory)

Ventura: All

Chaparral: All (excluding Hickory)

Silverado: All

Novella: All (excluding Hickory)

Organic Engineered: All (excluding Hickory)

NOTE: Hallmark Solid Hardwood Flooring excluded from Radiant Heat Installation Method.

RADIANT HEAT IN LIGHTWEIGHT CONCRETE THERMAL MASS

Two to three weeks prior to the arrival of the hardwood floor and after completion of all wet work at the job site, the radiant heat system should be on at a temperature of 70° F for three weeks and then at 85° F for 2-3 days. During this time, the structure should be well ventilated to prevent moisture buildup (the increased heat is driving the moisture out of the concrete thermal mass during this time). If this is not possible due to weather/ outdoor climate conditions, dehumidifiers should be used to keep moisture from building up in the structure.

NOTE: Prior to installation, the lightweight concrete moisture content must not exceed 1.5% as measured with a Tramox Moisture Encounter meter. Check adhesive manufacturer's requirements as they may be different.

RADIANT HEAT / WOOD SUBSTRUCTURE AND ALUMINUM THERMAL TRANSFER SHEET

Two weeks prior to arrival of hardwood flooring at job site, the radiant heat system should be gradually brought up to 70° F. Moisture levels allowable in wood sub floor are not to exceed 12%. Once systems have reached optimum conditions, Hallmark Floors engineered hardwood flooring should be brought to job site, not before.

WOOD FLOOR ACCLIMATION PROCESS FOR RADIANT HEAT

Hallmark Floors engineered hardwood flooring is dried to a moisture content of approximately 8% -10% moisture content by volume. This is a stable moisture content, and it is important to adjust the indoor climactic conditions to fully support the moisture content found in the boards. A relative humidity rating of 30 to 55% at time of installation is required.

Allow unopened boxes of Hallmark floors engineered hardwood flooring to stabilize in above environment for 24 to 48 hours to allow material to adjust to room temperature. Room temperature should not vary more than 15° F season to season and relative humidity range between 30% to 55% should be maintained.

For further information, see Hallmark Floors® Radiant Heat Guide.



V2 2018

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