

**CAUTION: ASBESTOS IN EXISTING FLOOR:** This product does not contain asbestos. Existing installed resilient flooring and asphaltic adhesive may contain asbestos fillers or crystalline silica. Do not sand, dry sweep, dry scrape, drill, saw, bead-blast, or mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphaltic "cutback" adhesive or other adhesive. See "Recommended Work Practices for Removal of Resilient Floor Coverings" (rfci.com) for detailed information and instructions on removing all resilient covering structures.

**CAUTION:** DO NOT INSTALL IN all exterior installations, seasonal porches, boats, campers, RV's, sunrooms, solariums, non-temperature controlled rooms or homes.

## Safety and Health Precautions

Power tools can be dangerous. Operate in strict accordance to manufacturer's operating instructions and safety precautions. Unsafe and improper use can cause serious injuries. Avoid inhalation and exposures to airborne particles by mechanical means and by wearing personal protective equipment. Wear appropriate personal protective equipment (PPE) which includes NIOSH or OSHA approve dust masks, safety goggles and work gloves.

## Warranty

This flooring product comes with a manufacturer Limited Wear Warranty. The warranty applies to the original purchaser of the flooring. It warrants the original purchaser that the finish surface will not wear through for the duration of the stated warranty from the date of purchase. Contact our Customer Service Team at 1-800-986-3460 to request a written copy which provides detailed terms of coverage and limitations.

## Pre-Installation

### OWNER/INSTALLER 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 THE BOXES. OPENING ALL THE BOXES CONSTITUTES YOUR ACCEPTANCE OF THE PRODUCT. INSPECT ALL THE TILES 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.**

Prior to installation, rack up planks/tiles from several boxes to ensure uniform distribution of colors, shades and characters in the installed flooring. Planks/tiles having similar widths should be placed together in the same row to minimize gaps between boards.

Purchase flooring to be installed in one large area 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/tiles. Any exact matches are coincidental. Non-matching accessories are not defective products.

This product is manufactured according to strict quality standards. In the event that defects are discovered in the field, the industry standards permit a defect tolerance not to exceed 5%. Order an additional 10% extra for cutting wastage and grading allowances (more for diagonal installations).

During installation, inspect the planks/tiles continuously. Defects that can be seen from a standing position should be cut off or held out. Installing defective planks/tiles implies acceptance.

Clicking noises are the result of interactions among flooring, joists and subfloors when they move. Sometimes, it is impossible to eliminate them completely and minor clicking noises are to be accepted as normal flooring phenomenon.

**IMPORTANT:** With square edge products, some ledging can be visible up to a .15 mm variance.

To assure the warranty is not inadvertently voided, before proceeding with any activity that is not covered in this manual, please contact our Customer Support Team at 1-800-986-3460.

### CONCRETE SUBFLOOR REQUIREMENTS

Concrete subfloors must:

- Have minimum rated strength of 3000 psi.
- Be level to within 3/16 in. in a 10 ft. span; no bumps or low spots. High spots can be removed by grinding; depressions can be filled with patching compound formulated for use in floor installation. Subfloors should not slope more than 1 in. per 6 ft.
- Be clean; no construction debris, soil, mud and any other objects on or adhering to the floor; if necessary, scrape and sweep away before the installation; no protrusions of nails, debris, metals should remain.
- New concrete slab must cure for at least 90 days. It must have a minimum 10 mil polyethylene sheet between the ground and the concrete.
- Be free from moisture related conditions which can damage the installed flooring.

### CONCRETE MOISTURE

Test all concrete subfloors for moisture content and document the results with a photo. For full warranty coverage, we recommend documenting your test results with a photo. 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 sq. ft. of area and one test for every additional 1000 sq. ft. thereafter.

Moisture content should meet one of the following criteria:

- 4% max. when tested using Tramex Concrete Moisture Encounter over bare concrete with no adhesive or sealer.
- Less than 8 pounds per 1000 sq. ft. per 24 hours when using Calcium Chloride test (ASTM F1869).
- 85% max. when using Relative Humidity Testing (ASTM F2170).

**NOTE:** Concrete moisture content may be acceptable 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.

### WOOD SUBFLOOR REQUIREMENTS

The subfloor must be clean; no presence of construction debris, soil, mud and any other objects on or adhering to the floor; no protrusions of nails, debris, or metals should remain. If necessary, scrape and sweep the subfloor before the installation.

The subfloor must be structurally sound and stable; no movements or squeaks; no loose panels or loose nails; no signs of ply de-lamination or other damages. Repair all shortcomings before installation.

The subfloor must be flat; no visible bumps or low spots; the subfloor should be flat to within 3/16 in. in 10 ft. span. Test for moisture using a reliable pin type meter. Perform tests at locations around exterior doorways, near foundation walls, near walls containing plumbing lines and in the center of the room. Moisture levels should not exceed 12%.

### PLYWOOD OR ORIENTED STRAND BOARD (OSB) SPECIFICATIONS

On truss/joist spacing of 16 in. (406 mm) O/C or less, the industry standard for single-panel subflooring is a minimum 5/8 in. (19/32 in., 15.1 mm) CD Exposure 1 plywood subfloor panels (CD Exposure 1) or 23/32 in. OSB Exposure 1 subfloor panels, 4 ft. x 8 ft. sheets. Expansion gap between panels should be 1/8 in. (3 mm). If panels are not tongued and grooved and there is not sufficient spacing or is inadequate, cut in the required spacing with a circular saw. Do not cut in expansion space on tongue and groove panels.

### PARTICLE BOARD OR FIBER BOARD

Only for floating installation. Product has to be sound and stable with no visible signs of moisture-related conditions.

### EXISTING FLOORS

Installation over existing floor requires the installer to consider potential issues related to moisture damage, adhesive failure and fastener failure. Contact the adhesive and fastener manufacturers respectively for their specific instructions, recommendations and requirements.

Acceptable floor coverings include: Solid hardwood (smooth, securely fastened and within acceptable moisture levels), linoleum (one layer only), terrazzo, ceramic, and stone tile. Tiled floors with grout lines will require a cementitious leveling compound to fill any grout lines, voids, or cracks.

Unacceptable floor coverings include: Carpet (any type), foam underlayment, cushioned-back vinyl, rubber, cork, laminates, free-floating floors, and wooden floors over concrete.

## Helpful Pointers

### GENERAL TIPS

- Make sure your work area is well lit. Good visibility ensures that color is consistent and that visually defective planks/tiles are detected and removed.
- The minimum length of the first and last plank/tile is 8 in.. If the last plank/tile will be less than 8 in., adjust the length of the first plank/tile. The remainder of the last plank/tile can be used as a starter board on the following rows.
- Using a shorter piece at undercut door jams will help when fitting flooring in place.

**IMPORTANT:** Never hit the flooring directly with a tapping block and be careful not to fracture flooring edges.

- For plank installation, we recommend staggering the end joints a minimum of 6 inches.
- For tile installation, we recommend staggering the end joints a minimum of 3 inches.

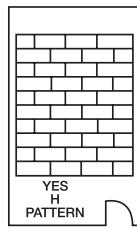
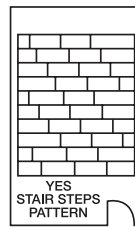
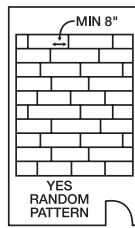
**NOTE:** Do not install four corners together, as this will not provide a stable installation.

### CUTTING THE LAST ROW TO WIDTH

- Most often the entire length of the last row will need to be cut so that it is narrow enough to fit the remaining space.
- Measure the distance between the floor face edge (exclude the tongue) to the wall. Subtract 1/4 in. from this measurement for expansion gap. Draw a line. Cut through the line. Discard the excess piece. Proceed with the installation.

## Preparing for Installation

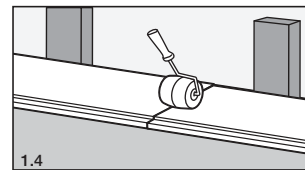
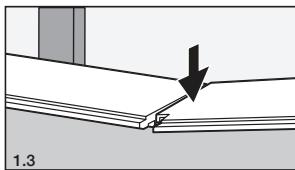
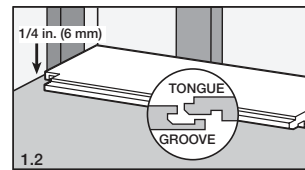
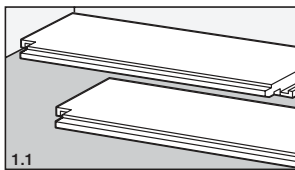
- Ensure subfloors are clean.
- Lay out several cartons. Randomly rack the flooring planks/tiles to ensure good color and shade mixture and end joint spacing. Minimum end stagger is 8 in. Inspect plank/tile quality and grading.
- Lay out trim moldings in advance and find flooring pieces whose shade closely matches. Set these aside for future use.
- Remove the existing base, shoe molding or threshold carefully. They can be used to cover the 1/4 in. expansion gap left around the edge of the room.
- Undercut doors and casings using a handsaw laid flat on a piece of scrap flooring. Never undercut metal door casings.



## Installation

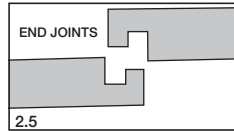
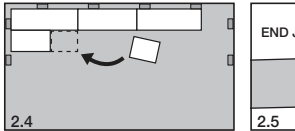
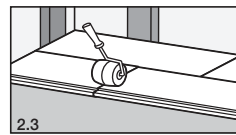
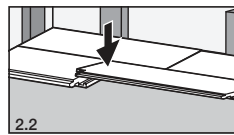
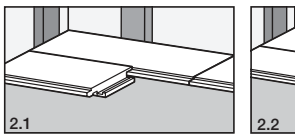
### 1. INSTALLING THE FIRST ROW

- a. First, lay a row of loose planks/tiles (i.e. without securing them to each other; Figure 1.1) to determine if you need to adjust the length of the first plank/tile to avoid a small piece (less than 8 in.) on the opposite wall from where you started. Alternatively, measure the length of the room and divide by the length of one plank/tile. If the remainder is less than 8 in., calculate 1/2 of the remainder and trim this amount off the first plank/tile. The last plank/tile should be the same length as the first one. To cut a plank/tile, simply measure and mark the plank/tile. Then, use a straight edge and utility knife to score and snap.
- b. Installation should start in a corner (left hand) and proceed from the wall with the groove facing the wall (Figure 1.2). Allow a minimum gap of 1/4 in. (6 mm) for subfloor movement or product expansion, which should be covered by molding. Set 1/4 in. spacers to create the required expansion space.
- c. Install the first row in a straight line using a vinyl seam roller to properly secure the end joints allowing 1/4 in. expansion space next to all walls and vertical surfaces. See Figure 1.4. This is to allow movement within the structure. **DO NOT USE A MALLET OR HAMMER TO INSTALL THE END JOINT.**
- d. Stagger the rows so that the short-edge seams are not aligned in a straight, uniform manner. Refer to the "PREPARING FOR INSTALLATION" section for recommended installation patterns.



### 2. INSTALLING THE SECOND AND REMAINING ROWS

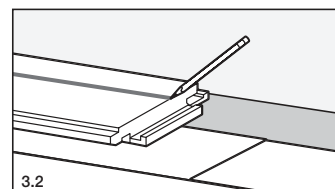
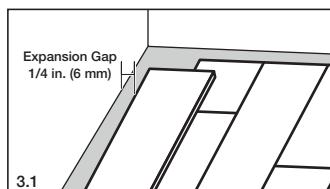
- a. Start the second row with the plank/tile cut half the length, or for desired pattern; measure and mark the plank/tile. Then, use a straight edge and utility knife to score and snap the plank/tile.
- b. Attach the first plank/tile of the second row by connecting the long side to the first row (Figure 2.1). Maintain your 1/4 in. expansion gap. Then, attach the second plank/tile by connecting the long side to the first row, angling the plank/tile approximately 4 in. - 6 in. up to avoid damage to the profiles on the end joints, and sliding it up to the short end of the first piece (groove to tongue). Then, drop and lock (Figure 2.2). To ensure a tight fit, use a seam roller on the short seams only, then use a soft-faced hammer to gently tap the scrap tapper in order to properly secure the length of the joint. (Figure 2.3).
- c. When cutting a plank/tile to start a row, you will need to cut off the end with the groove. The remaining piece can then be used on the opposite side of the room, at the end of that row (if layout permits; Figure 2.4). Refer to Figure 2.5 for a close-up of the end-joint locking mechanism.



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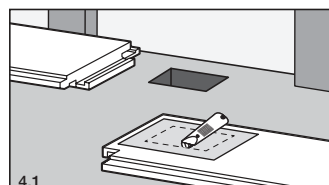
### 3. INSTALLING THE LAST ROW

- a. Cut the first plank/tile of the last row to length (following desired pattern). Place directly on top of the previously installed row. Then, measure the gap between the last installed plank/tile and the wall (allowing for 1/4 in. (6 mm) expansion gap) (Figure 3.1). Mark the plank/tile, score and snap (Figure 3.2). Continue this method for the remainder of the pieces in the last row. Always place the cut end of the flooring against the wall.



### 4. FITTING AROUND IRREGULARLY SHAPED OBJECTS

- a. Make a pattern out of heavy paper to fit around pipes or irregularly shaped objects (Figure 4.1). Place the pattern upon the flooring and trace. Cut along trace lines using a utility knife or sharp shears, and lay plank/tile. Be sure to leave a minimum of 1/4 in. (6 mm) expansion space around all fixed objects, cabinetry, and metal door jambs. Undercut wooden door jambs. Fill any expansion spaces around potentially wet areas (such as refrigerators, tubs, and appliances) with premium, waterproof, 100% silicone caulk.



**NOTE:** Rooms larger than 1500 sq. ft. (50 ft. x 30 ft.) require the use of coordinating T-molding transitions. Doorways and archways less than 4 ft wide also require the use of T-molding transitions.

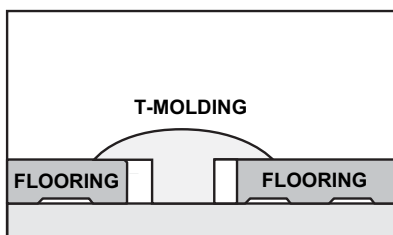
**NOTE:** Save any leftover planks/tiles. Do not discard as they are color matched (dye-lot) to your floor. They can be used for replacement in the event you need to replace a plank/tile in the future.

## Accessories

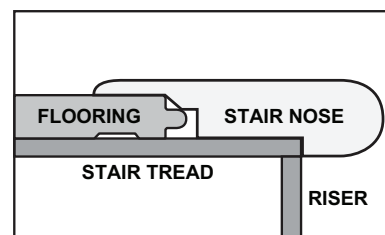
Pictures are for general illustrative purposes only. Actual products may differ from pictures.

- Clean the floor.
- Install or reinstall all wall trim pieces. Nail them through the wall, but not to the subfloor to avoid restricting the expansion gap.
- Install transition trim pieces. Nail them to the subfloor, not the flooring.
- At doorways, transitions should be used to protect the edges of the floor and to provide a decorative transition from one floor type to another.
- If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic.

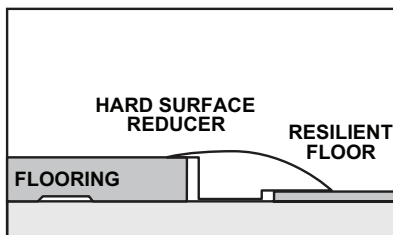
**T-Molding:** Used to create a transition between floor coverings of similar heights or to cover an expansion gap.



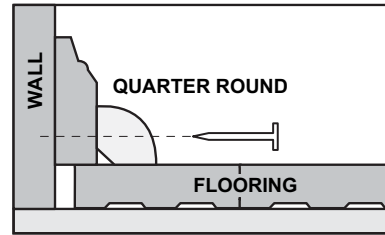
**Stair Nose:** Used in conjunction with flooring installed on stair steps or finished edges of a higher level floor like in a sunken living room.



**Hard Surface Reducer:** Used to transition to another hard surface flooring of different heights such as tile, vinyl, or concrete.



**Quarter Round:** Used to cover the expansion space between the wall base and your flooring. It can also be used to make smooth transitions between the floor and cabinetry. It can be used with or without wall base molding. Ensure you nail the quarter round to the wall and not the flooring, as shown.



## Care and Maintenance

### DAILY MAINTENANCE

- Sweep, dust, damp 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. Use any high-quality, pH-neutral vinyl cleaner. Alternatively, use a non-rinsing, biodegradable cleaner that leaves no residue or haze.
- For lightly soiled area, clean with distilled water.
- HINT:** For best results, clean the floor in the same direction of the tiles. 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 wet mop or douse the 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.
- Do NOT use any dust cleaners, as they may cause your floor to become slick or damage the finish.
- Avoid spills of paints, dyes, or harsh chemicals.
- Avoid long term exposure to direct sunlight. Use window treatments or UV tinting on windows.

### BRANDED OR OFF-THE-SHELF FLOOR CARE PRODUCTS

If none of the above are effective and you choose to use a store bought product, test the product in a non-conspicuous area (i.e., closet, corner, or scrap pieces) for potential adverse side effects.

### 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.
- Use flat floor protectors (nylon or felt) on all furniture legs. Clean protectors periodically to remove grit that may become embedded and cause scratching.
- 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.
- Use NON-RUBBER backed mats at all entrances to reduce the walk-off residue from asphalt driveways as well as prevent dirt and grit from being tracked onto your floor. Rubber backed mats can discolor your floor.
- We recommend the use of a hard surface (non-studded), non-rubber chair mat to protect your floor from office chairs with casters. Light, rolling furniture should be outfitted with broad-surface, non-staining casters that have been engineered for hard surface floors. Such casters should be a minimum of 1 in. (2.5 cm) wide and at least 2 in. (5.1 cm) in diameter.
- Keep pets' nails trimmed.
- Remove shoes with cleats, spikes or exceptionally pointy heels before walking on the floor.

### TREATING STAINS, SPILLS, AND SCUFFS

Follow the remedies in order. Unless instructed otherwise, use a clean, white cloth or towel with products recommended for our LVT flooring. Always rinse the affected area with clean water after treatment.

- For most stains and spills such as acids, alkalis, foods, and rust:** First, remove as much of the spill as possible. Scrub the area with a full strength cleaner. Rub the area with a 10/1 dilution of water/liquid bleach. Rub the area with isopropyl alcohol. If rust stain does not respond, use lemon juice or a cream of tartar solution.
- For paint and solvent spills such as dry cleaning fluids, paints, nail polish, and wood stains:** If the substance is dry, gently peel it from the floor. Avoid sharp instruments that could scratch the floor. Scrub the area with a non-abrasive cleaner. Rub lightly with odorless mineral spirits or paint thinner.

**NOTE:** Do not use acetone or nail polish remover!

- For substances that do not wipe up such as adhesives, chewing gum, oil, and grease:** First, remove as much solid material as possible. Carefully remove excess with a spoon or fingernail. Scrub the area with non-abrasive cleaner. Rub lightly with odorless mineral spirits, isopropyl alcohol or lighter fluids.
- For scuffs and smudges:** Rub the scuff with your fingertip. The friction from the rubbing will remove rubber. Scrub the area with non-abrasive cleaner. Rub lightly with isopropyl alcohol or lighter fluid.

### CLIMATE MAINTENANCE

- Care should be taken to control humidity levels within the 35% - 85% range to avoid excessive movement within the floor.
- 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 deep scratches may require the replacement of the planks/tiles.