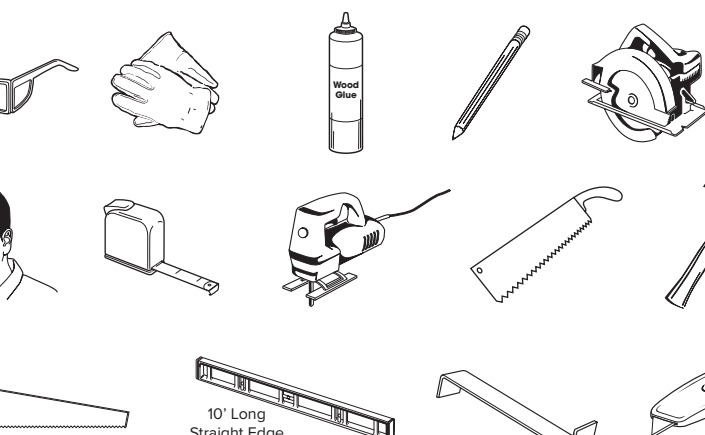


Common Tools



Common Tools

- Safety Glasses
- Work Gloves
- Wood Glue
- Pencil
- Circular Saw (Carbide 40T Blade)
- Face Mask
- Tape Measure
- Hand Sander
- Hand Saw
- Claw Hammer
- Hand Saw
- 10' Long Straight Edge
- Pry Bar
- Chisel

Floor tapping block and 5 mm ($\frac{3}{16}$ ") spacers
 Perimeter Seal
 Finishing Putty
 Moisture Meter
 100% Silicone Sealant
 Felt Furniture Pads
 PE Foam Backer Rod

Diagram illustrating the correct and incorrect installation of a vapor barrier under a roof and floor.

Roof Installation:

- Correct installation (a) shows the vapor barrier extending down the exterior wall, meeting the roof edge.
- Incorrect installation (b) shows the vapor barrier not properly sealed at the roof edge.
- Dimensions: 10' (3 m) horizontal extension, > 5" (130 mm) vertical extension.

Floor Installation:

- Correct installation (a) shows the vapor barrier extending down the exterior wall, meeting the floor edge.
- Incorrect installation (b) shows the vapor barrier not properly sealed at the floor edge.
- Dimensions: > 8" (200 mm) vertical extension.

6 mil (0.15 mm) virgin polyethylene vapor barrier

This product is a durable floor covering, not intended as structural material. This product requires a clean, dry, secure subfloor that meets building codes. This product must be installed in accordance with these installation instructions.

The following requirements are not intended to supersede federal, state, or local building codes but, as with many other interior finish products, may require modifying existing structural components for successful installation. Owner assumes responsibility for compliance with all building codes.

This product is suitable for use in climate-controlled (35%–65% RH and 60°F–85°F) indoor installations only and should not be installed over any floor with a sump pump or in a room with a floor drain. This product can be installed above, on, or below grade. A moisture test is required to determine if high moisture exists in the subfloor.

Concrete subfloors must be tested and acceptable results at the TIME OF INSTALLATION must be recorded and documented and are as follows:

- ASTM F2659 — A meter calibrated for concrete qualified by gravimetric testing must be used. Moisture content must be less than or equal to 4.0% MC.
- ASTM F1869 — Calcium chloride testing to determine water vapor emissions (MVER) less than or equal to 5 pounds / 1,000 square feet / 24 hours.
- ASTM F2170 — In-situ probe testing to confirm the relative humidity (RH) is less than or equal to 80%.

If any of these test results are outside of requirements, the flooring should not be installed until the concrete subfloor is within the proper range.

Wood subfloors must be tested and acceptable results at the TIME OF INSTALLATION must be recorded and documented and are as follows:

- A pin-less (dielectric) or pin-type (electrical resistance) meter must be used to perform and record one moisture test per 100 square feet.
- Moisture content of wood subfloors must be less than or equal to 12% MC.
- Variance between subfloor and this product may not exceed 4%.

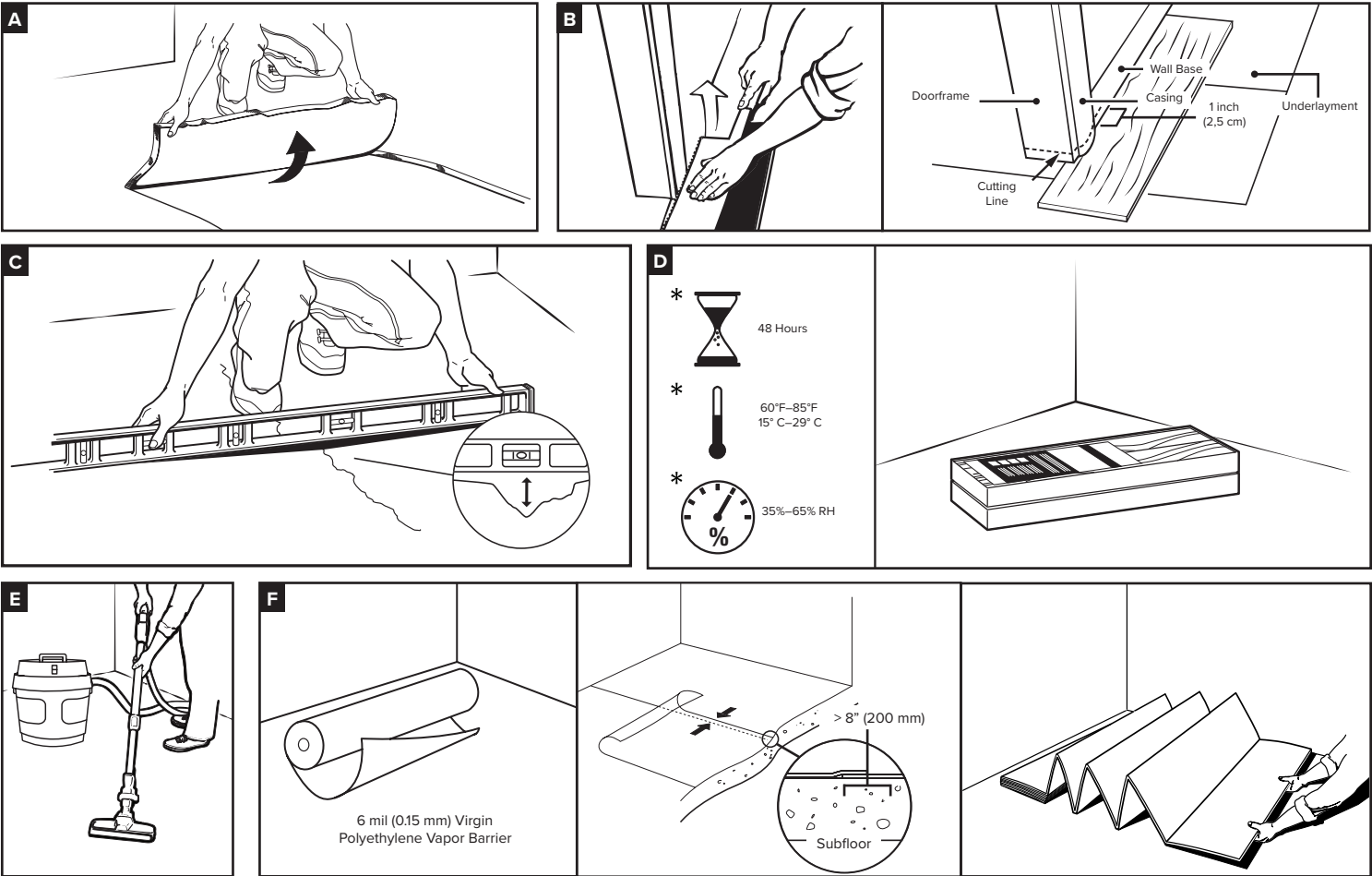
If the moisture content of the subfloor and this product flooring are outside of these tolerances, the flooring should not be installed until it is within the proper range

Acceptable jobsite conditions, including relative humidity and subfloor moisture conditions, must be maintained throughout the lifetime of the flooring.

This product is installed as a floating floor and requires the use of T-moldings in doorways less than 32 inches (0.81 m) or if the installation changes directions through the doorway (regardless of doorway size) and in rooms 50 feet (15.24 m) or larger in length or width. Floor movement must not be constrained by glue, nails, screws, hardware, or other fixed obstructions.

This product must be installed in accordance with these installation instructions.

Site and Material Preparation



- A. Remove carpet and padding. Also remove any wood flooring installed on concrete. Do not remove products unless they are asbestos-free.
- B. Undercut doorframe and wall base. The floor must extend at least 1/4 inch underneath the undercut doorframe and wall base. Ensure that there is a 3/8-inch minimum expansion space between the flooring product and any other obstruction.
- C. No more than 3/16 of an inch of unevenness per 10 foot span is permitted. If that is not true, you need to fill depressions with leveling compound and remove bumps and peaks in subfloor.
- D. No on-site acclimation is required if flooring is delivered at a moisture content and temperature that coincides with the expected in-use (e.g., normal living) conditions of the facility, and these conditions are maintained. Otherwise, acclimate for 48 hours at temperatures between 60°F and 85°F with RH between 35% and 65%.
- E. Clean debris from subfloor before installation.
- F. To determine your underlayment needs answer the following questions:
1. Is your subfloor concrete or wood?
2. Does your flooring have attached underlayment?
- G. Proceed by referencing the following table:

	Concrete Subfloor	Wood Subfloor
Attached Underlayment	Add Vapor Barrier	No Underlayment or Vapor Barrier Required
No Underlayment Attached	Add Underlayment & Vapor Barrier*	Add Underlayment

*Use an underlayment with moisture barrier or underlayment without moisture barrier and 6 mil polyethylene vapor barrier.

Flooring With Underlayment Already Attached

For concrete subfloors:
First, install polyethylene vapor barrier or Performance Accessories® MoistureBarrier™ with overlapped seams of 8 inches or more. If additional performance is needed or desired, it is acceptable to use Performance Accessories underlayment prior to flooring installation. Make sure to follow the underlayment installation instructions.

For wood subfloors:
No vapor barrier is required. However, if additional performance is needed or desired, additional underlayments can be used. Make sure to follow the underlayment installation instructions, taking special care to seal all foam edges with sealing tape and repair all rips and perforations in the underlayment vapor barrier.

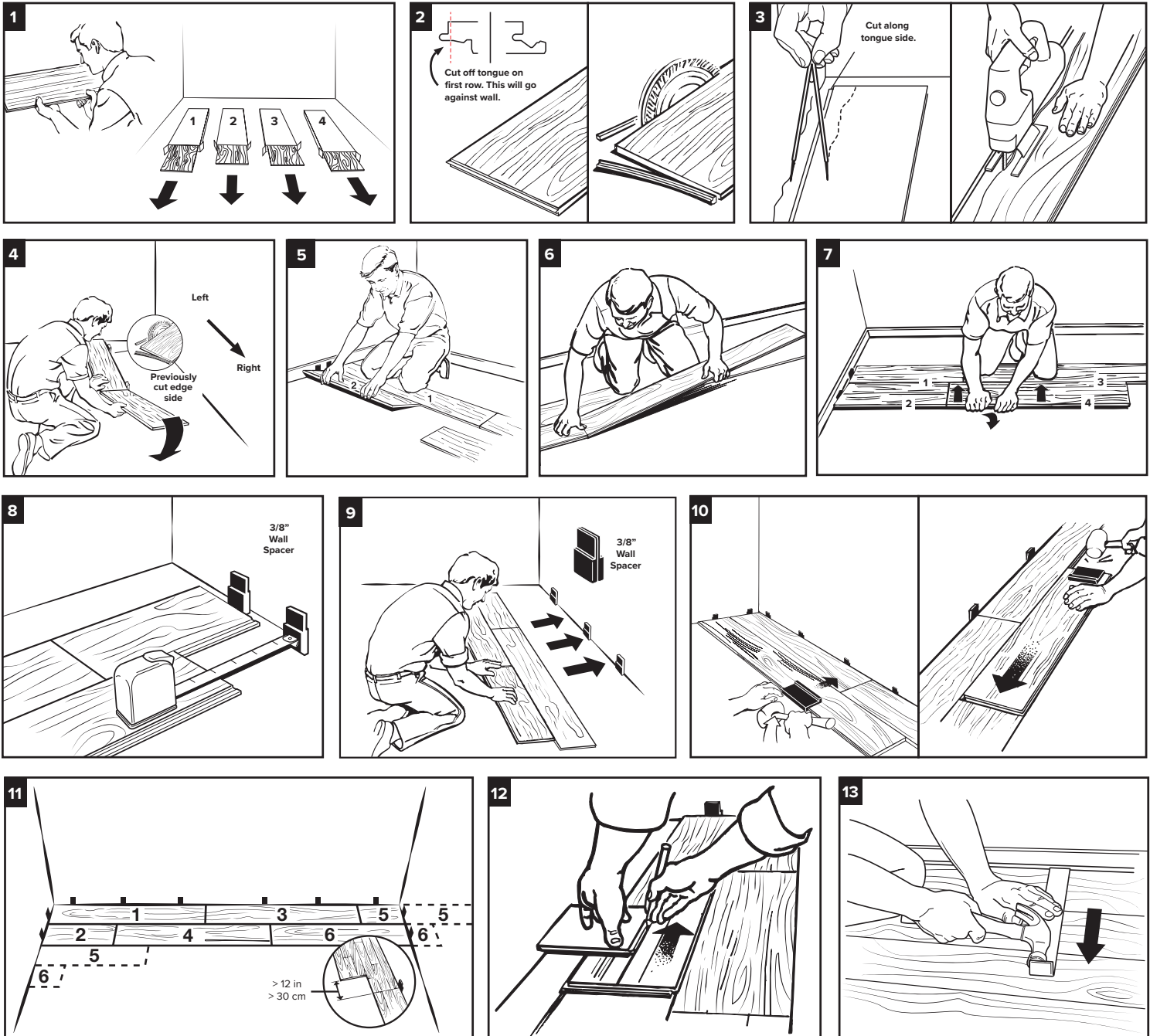
Flooring Without Underlayment Attached

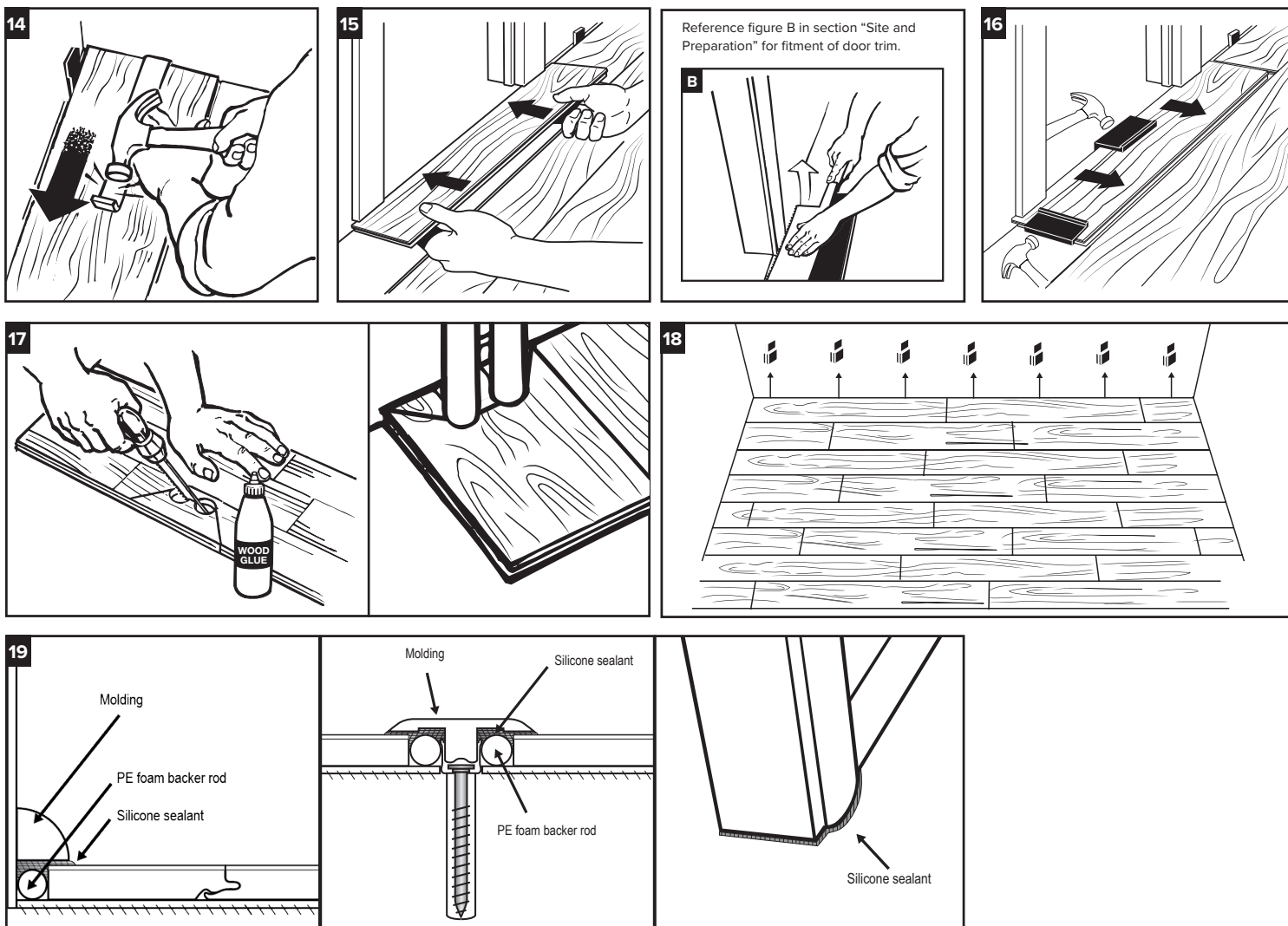
For concrete subfloors:

First, install polyethylene vapor barrier or Performance Accessories MoistureBarrier with overlapped seams of 8 inches or more. Then, install a single layer of underlayment appropriate for this product. If that underlayment has a fully attached moisture barrier, then no polyethylene moisture barrier is required.

For wood subfloors:

Install a single layer of underlayment appropriate for this product.





Flooring Installation

1. Inspect each plank. Floor should be installed by blending planks from several cartons at the same time to ensure good color and shade mixture throughout the installation.
2. **For the first row along straight walls**, remove the tongue on all long-side joints and on the short side of the first plank only.
3. **For uneven walls**, scribe contour on the tongue side of plank and cut.
4. Assemble the first row, tongue side toward wall. Insert the end tongue of the second plank into the end groove of first plank and rotate downward to assemble. Keep the planks aligned and the joints closed.
INSTALLATION TIP: Start your first row several feet away from the wall.
5. At a slight angle, insert the tongue of plank 2 into the groove of plank 1 until the plank edges meet, and then rotate down until the joints lock.
6. For the second plank in the second row (plank 4), join the short end of the plank first.
7. Raise the outside edge of plank 4, as well as the first plank in row 2, upward approximately 1 inch. Maintain this angle as you push the plank in until the plank edges meet. Rotate the plank downward until the joint locks. Repeat these steps to complete the installation.
INSTALLATION TIP: Place a carton of planks across the end of the row being installed to keep installed planks in place during installation.
8. Ensure there will be a 3/8-inch gap (after the joint is closed) between the plank and the wall for expansion.
9. After completing the first two rows, push them back against the starting wall while maintaining 3/8-inch expansion gap on all sides.
10. **Alternate Tap Method:** Align the tongues into the grooves of the long and short sides of the planks. Install the long side first by placing a tapping block no closer than 8 inches from either end and tap lightly along the long side until the joint is closed tightly. Then tap the end into a locked position using the tapping block. **Note: Uneven tapping or use of excessive force may damage the joint.**
11. Provide a 3/8-inch space for expansion on all sides using flooring installation spacers. First piece must be at least 8 inches long. Start new rows with pieces from previous row. Ensure at least a 12-inch end joint offset.
INSTALLATION TIP: For the best results, randomize the end joint offset to avoid a stair step appearance in the floor.
12. For the last row, align the plank to be used on top of the second-to-last row. Using a full-width plank as a spacer, trace wall contour and cut plank.

13. For the last row, install the long-side tongue into the groove with the end joint aligned. Using a pull bar and hammer, work evenly along the length of the plank and lightly tap the joint closed.
14. After tapping the long-side joint closed, tap the short side closed, using a tapping block or a pull bar.

Installation Under Doorway Frames

15. Slide plank under precut door frame.
16. Tap the long-side joint closed first. Then tap the end joint closed.

Installation Around Fixed Objects (Such as Pipes)

17. Allow 3/8-inch expansion space around pipes or other fixed objects

Finishing the Installation

18. Remove all spacers.
19. Seal the perimeter of the floor and all transitions using one of the methods below for full warranty coverage.
INSTALLATION TIP: Apply silicone sealant at connections to doorframes or any other fixed objects.

Silicone and backer rod:

- Fill all expansion spaces with 3/8-inch compressible PE foam backer rod and cover with silicone sealant.
- Prior to installing the moldings, apply silicone sealant to the portion of the molding or transition that will contact directly with the flooring surface.
- Install moldings and immediately wipe away any excess silicone sealant.

PerimeterSeal™ tape:

- Install according to the PerimeterSeal tape install instructions.

Waterproof quarter round:

- Install according to the waterproof quarter round installation instructions.

Care and Cleaning

- Place felt floor protectors under legs of moveable furniture. Chair casters should be rubber, not plastic or metal. Chair pads should be used under chair casters. Place walk-off mats at entrances.
- Dust mop as primary cleaning method. Occasionally wet mop with water only, using a well-wrung-out mop. **DO NOT pour liquid directly on floor or use an excessively wet mop that will puddle or leave moisture standing on the floor.**
- If needed, use a solution of 1 cup of vinegar per gallon of water or 1/3 cup non-sudsing ammonia per gallon of water. **DO NOT use detergents, abrasive cleaners, soaps, waxes, or polishes.**
- **DO NOT use rotating beater bars, floor scrubbers, jet mops, or similar products. Never steam mop this product unless covered by a Steam Mop Warranty.**
- Wipe up spills immediately. **DO NOT allow topical moisture to remain on the floor longer than the time specified in the product warranty.**
- **For additional information, please refer to the Care and Cleaning document for specific instructions related to your product.**

⚠WARNING: DRILLING, SAWING, SANDING OR MACHINING WOOD PRODUCTS CAN EXPOSE YOU TO WOOD DUST, A SUBSTANCE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. AVOID INHALING WOOD DUST OR USE A DUST MASK OR OTHER SAFEGUARDS FOR PERSONAL PROTECTION. FOR MORE INFORMATION, GO TO WWW.P65WARNINGS.CA.GOV/WOOD.

IMPORTANT HEALTH NOTICE FOR MINNESOTA RESIDENTS ONLY: THESE BUILDING MATERIALS EMIT FORMALDEHYDE. EYE, NOSE, AND THROAT IRRITATION, HEADACHE, NAUSEA AND A VARIETY OF ASTHMA-LIKE SYMPTOMS, INCLUDING SHORTNESS OF BREATH, HAVE BEEN REPORTED AS A RESULT OF FORMALDEHYDE EXPOSURE. ELDERLY PERSONS AND YOUNG CHILDREN, AS WELL AS ANYONE WITH A HISTORY OF ASTHMA, ALLERGIES, OR LUNG PROBLEMS, MAY BE AT GREATER RISK. RESEARCH IS CONTINUING ON THE POSSIBLE LONG- TERM EFFECTS OF EXPOSURE TO FORMALDEHYDE. REDUCED VENTILATION MAY ALLOW FORMALDEHYDE AND OTHER CONTAMINANTS TO ACCUMULATE IN THE INDOOR AIR. HIGH INDOOR TEMPERATURES AND HUMIDITY RAISE FORMALDEHYDE LEVELS. WHEN A HOME IS TO BE LOCATED IN AREAS SUBJECT TO EXTREME SUMMER TEMPERATURES, AN AIR-CONDITIONING SYSTEM CAN BE USED TO CONTROL INDOOR TEMPERATURE LEVELS. OTHER MEANS OF CONTROLLED MECHANICAL VENTILATION CAN BE USED TO REDUCE LEVELS OF FORMALDEHYDE AND OTHER INDOOR AIR CONTAMINANTS. IF YOU HAVE ANY QUESTIONS REGARDING THE HEALTH EFFECTS OF FORMALDEHYDE, CONSULT YOUR DOCTOR OR CALL LOCAL HEALTH DEPARTMENT.

Unilin North America LLC, 550 Cloniger Drive, Thomasville, NC 27360

Manufactured by Unilin North America, LLC Customer Service | 1-800-337-3746,option 1 & 3 | flooringsupport_pergo@mohawkind.com