



modernmaven | Rigid Core  
Installation Instructions



**Limitations**

This flooring has a Solid Polymeric Core (SPC) and is designed to be installed indoors only as a "floating floor" for residential applications. The optimal operating temperature is between 40°F to 90°F (4°C to 32°C). Avoid prolonged exposure to direct sunlight or other heat sources where temperatures will exceed 90°F (32°C), as damage may occur. This product is not suitable for heavy rolling loads. Rolling chairs with soft or W-type casters and a maximum rolling weight of 250 lbs. are acceptable, provided that a polycarbonate chair mat is used to protect the flooring in rolling chair areas. Do not secure flooring or furniture to the subfloor with mechanical fasteners or adhesives. Do not install cabinets, kitchen islands, or other non-movable furniture on top of this floor covering. If required or concerned, immediately contact the technical department at [customercare@duradecor.com](mailto:customercare@duradecor.com) or 1 - (855) 700 - 5666 for assistance. Copies of ASTM documents are available for purchase at [www.astm.org](http://www.astm.org).

**Warning**

All local, state, and federal regulations must be followed; this includes the removal of in-place asbestos (floor covering and adhesive) and any lead-containing material. The Occupational Safety and Health Administration (OSHA) has exposure limits for people exposed to respirable crystalline silica; this requirement must be followed. Do not use solvent or citrus-based adhesive removers. When appropriate, follow the Resilient Floor Covering Institute's (RFCI) Recommended Work Practice for Removal of Existing Floor Covering and Adhesive. Always wear safety glasses and use respiratory protection or other safeguards to avoid inhaling any dust. The label, installation, and maintenance instructions along with the technical data sheet, limited warranty and any appropriate Safety Data Sheet (SDS) of all products must be read, understood, and followed before installation commences. If the substrate or subfloor fails for any reason, then the floor covering limited warranty is void.

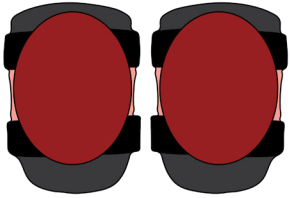
**Site Conditions & Storage**

The prepared installation area must be fully enclosed and weather tight. During the installation, any direct sunlight should be blocked using blinds, drapes or other protection. The ambient temperature during installation must be > 60°F (16°C), with a recommended maximum of 80°F (27°C). Note: When installing at temperatures > 80°F (27°C), the size of an expansion gap will increase when the floor covering is cooled.

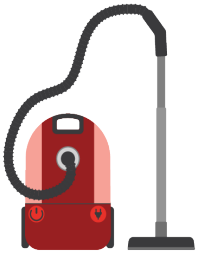
**Documentation**

Record and file the measured and observed site conditions and test results, including all photographs and corrective measures. Maintaining this documentation, along with the original invoice and any labor receipts

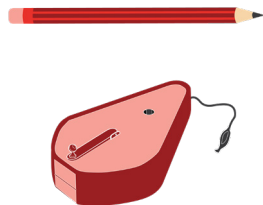
throughout the warranty period, is recommended, as this will be required in the unlikely event of a claim.



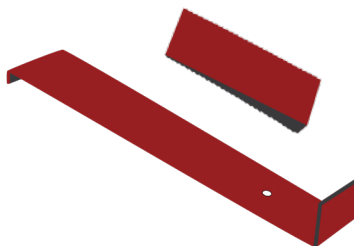
- Knee Pads
- Safety Glasses
- Cut-Resistant Safety Gloves
- Dust Mask



- HEPA-Filtered Vacuum
- Oscillating Multi-Tool or Hand Saw (for door jams)
- Jigsaw with Carbide Blades (for complicated cuts)



- 2 lb. (~32 oz.) Dead Blow Hammer (preferred) or Rubber Mallet
- Speed Square
- Pencil
- Chalk Line



- Tape Measure
- Utility Knife with Blades
- Wedge Spacers
- Pull Bar



- 6-foot and 1-foot Straight Edge or Level

## 1. Substrate Preparation

### Flatness

Check all substrates for flatness prior to installation. The maximum acceptable tolerance is < 1/8-in. gap (2 x US quarters) over 6-ft. and ≤ 1/16-in. gap (1 x US quarter) over 1-ft. Make any necessary adjustments to the substrate before installation. Dormant cracks, saw cut joints and grout lines < 1/8-in. wide or deep are acceptable – all others must be cleaned of all dirt and debris, then filled using a suitable commercial grade patching or repair compound, following the product instructions.

### Concrete Substrates & Concrete Moisture

All concrete must be free of contaminants and structurally sound. If required, smooth the surface using a suitable, moisture-resistant commercial grade leveling or patching compound, following the product instructions. Do not install if hydrostatic pressure is visible, present or suspected. If a chemical adhesive remover has been used, contact the technical department.

For all on and below grade concrete slabs, test the surface to confirm it is absorbent (porous), following the ASTM F3191 Standard Practice for Field Determination of Substrate Water Absorption (Porosity) for Substrates to Receive Resilient Flooring. The water droplets placed on the substrate must be absorbed for it to be considered absorbent. If required, the concrete can be made porous by mechanical methods, such as diamond grinding, a Diamabrush buffer attachment, shotblasting or similar.

If the substrate cannot be made porous and will not have a topical moisture mitigation system installed, install a ≥ 6-mil thick polyethylene (PE) sheet, which is available at most home improvement stores. Use sheeting that is ≤ 10-ft. wide to prevent wrinkles and folds. Sheeting must be installed over the entire area and extend at least 2-in. up the walls. All seams must be overlapped and sealed according to the product instructions.

### Wood Substrates

All wooden subfloors and substrates must be dry and in compliance with the moisture content percent (MC-%) for your region. Regional values are freely available by searching “moisture map of wood” images. Test using a non-destructive electronic moisture meter, following the product instructions.

Wood subfloors must comply with International Building Codes (IBC) and local building codes, have at least 18-in. of well-ventilated air space below and have a suitable vapor retarder to isolate the subfloor from ground cover and outdoor conditions. Wood subfloors are recommended to be of double layer construction, with a recommended total thickness of 1 in. or more, in accordance with ASTM standards, APA guidelines and sound control best

practices. If necessary, install an underlayment grade plywood with a minimum thickness of 1/4-in. on the surface in the opposite direction to the subfloor, following ASTM F1482 Standard Practice for Installation and Preparation of Panel Type Underlayments to Receive Resilient Flooring. Sleepers must not make direct contact with concrete or earth.

Note: plywood is a water-sensitive subfloor that may become damaged or deformed by topical liquids. To protect wood subfloors from topical water exposure, follow the Wet Area Guidelines.

### Radiant Heating Substrates

When installing floor covering over a substrate that contains a radiant heating system, ensure the radiant heat does not directly contact the floor covering and is set at the correct “in-service” temperature for 48-hours prior, during and after the installation. The radiant heat may be gradually increased or decreased to maintain the correct “in-service” site conditions.

Note: Ensure the temperature of the radiant heating system does not exceed 85°F (29°C).

### Additional Acoustic Underlayments

Additional acoustic underlayments are not recommended or required. However, should one be used, ensure a polycarbonate chair mat is used in all rolling chair areas. Do not use additional acoustic underlayments in any commercial areas.

### Unsuitable Substrates

These include but are not limited to: any floating or loose floor coverings, hardwood installed directly over concrete, carpet, cushion vinyl, rubber, cork, foam, asphalt tile, any additional acoustic underlayment, any substrate with visible mold, mildew, or fungi and any substrate in wet areas, such as inside showers and saunas. Do not install directly over any adhesive or adhesive residue of any kind. Do not install directly over radiant heating elements/pipes or in recreation vehicles, campers or boats.

### Other Subfloors/Substrates

Installing over existing resilient vinyl flooring is not recommended. However, it may be possible over some materials, such as hardwood flooring, VCT, VAT, quartz tile, solid vinyl tile, sheet vinyl or linoleum, as well as existing hard surface flooring substrates, such as terrazzo, porcelain or ceramic tile. Ensure existing flooring is a single layer and is clean, dry, sound, solid and well adhered. All loose material must be removed and repaired or replaced. All grout lines and wide seams greater than 1/4-in. in width and/or depth, as well as any significant substrate imperfections, must be filled and troweled flush with a suitable cementitious patch.

Note: Existing hardwood floor coverings will swell when

exposed to moisture - vinyl floor covering may restrict the movement of moisture in hardwood, which may result in flooring failure, especially when installed on or below grade. Some hardwood floor coverings may also discolor vinyl floor covering, which is excluded from warranty coverage. Electing to install over any existing floor covering releases the manufacturer from any responsibility regarding the suitability and continued performance of the product, including any resulting effect on the new floor covering.

### Wet Area Guidelines

Some subfloors and substrates, such as plywood, may be sensitive to and damaged or deformed by topical liquids, such as water, pet urine and spills. While ModernMaven Rigid Core Flooring is a waterproof product, water-sensitive subfloors may require additional protection to prevent water exposure. When installing floor covering in wet areas, ensure that bathmats or similar are used where appropriate to decrease the amount of water that can collect on the surface. Any and all spills should be cleaned up immediately after discovering them and within 8 hours. Subfloor flatness is critical to preventing water migration through seams that may flex or peak due to foot traffic and subfloor deflection - be sure to check flatness and make all necessary adjustments prior to installing.

Water-sensitive substrate must have a  $\geq 6$ -mil thick polyethylene (PE) sheet (available at Hardware stores) installed over the entire area and extend at least 2-in. up the walls. All seams must be overlapped and taped according to the product instructions. In addition, the area must be separated from all other rooms using a suitable water-resistant t-molding. Following flooring installation, the plastic sheet must be trimmed flush with the surface of the subfloor. Prior to installing wall-base or molding, the required perimeter expansion gap must be filled with a 100% silicone caulk, including the wet area side of all t-moldings. Additionally, all door jambs, plumbing and vertical surfaces that won't have wall-base or molding installed must be sealed with 100% silicone caulk. Once the entire perimeter has been filled or sealed, water-resistant wall-base, moldings or other accessories may be installed. Apply a bead of silicone caulk to the parts of the wall-base or moldings that will make contact with the surface of the flooring. Ensure all wall base and moldings are attached to the subfloor, wall or wall-base without compression, to allow movement and cleanup any remaining silicone immediately. Do not anchor wall-base or moldings into or through the floor covering.

## 2. Expansion Gap

If the length or width of the installation area is  $\leq 50$ -ft., an expansion gap of at least 1/4-in. must be created around the entire perimeter. If the overall length or width is between 50 - 85-ft., then the gap must be increased to 1/2-in. around the entire perimeter. A maximum of 85-ft. in length or width must not be exceeded. If required, use a suitable trim

molding covering the edges by 1/8-in. and allowing a 1/2-in. expansion gap.

For three-season rooms, a gap of at least 1/2-in. around the entire perimeter is required. In addition, the area must be separated from all other rooms using a suitable trim molding. The maximum of 30-ft. in length or width must not be exceeded.

Note: Areas with very heavy furniture  $\geq 800$ -lb. (363-kg) must be isolated from the rest of the installation with a compatible t-molding and have  $\geq 1/2$ -in. expansion gap.

## 3. Floor Installation Instructions

### General Installation Preparation

It is recommended that all wall-base be removed before flooring installation. Alternately, a quarter round molding that covers both the required expansion gap and at least 1/8-in. of the floor covering (attached to the wall or wall-base only) may be installed. Undercut all wooden door jambs and the first inch of any remaining wall-base (which will be covered with molding) with an Oscillating Multi-Tool or hand saw - the height must be the thickness of the floor covering plus 1/64-in., which allows the floor covering to expand and contract freely, out of sight, with temperature fluctuations (see figure 1). Steel door jambs should be pattern-scribed, leaving the required expansion gap. Use a color-coordinated 100% silicone to fill the void. Clean the entire area to be installed using a HEPA-filtered vacuum.

Before beginning, check and make sure the lot numbers on the packaging match and mix the floor covering from several boxes to ensure a random appearance. During the installation, inspect for visible defects, including any damage, gloss, color or shade variations, dirt and debris in the locking mechanism (remove using a soft brush), as installing it assumes full responsibility. If you have any concerns, do not install and immediately contact the technical department.

### Layout

Follow the design or drawings provided or agreed upon by the designer, architect, or end-user. The end joint layout for all planks should be random - make sure joints are not "stair stepped" (see figure 2). Failure to randomize end joints could weaken the integrity of the joint system, which may lead to failure. All planks must be at least 8-in. in length and all end seams must staggered by  $\geq 8$ -in. Tiles must be installed in a brick-bond pattern, offset by 1/2 or 1/3 of the plank.

### Cutting

To cut the floor covering, measure and mark the surface with a pencil, then carefully score the surface a few times on the mark using a sharp utility knife along the side of a speed square (see figure 3). Snap the plank downwards and complete by cutting the backing from underneath (see figure 4). For complicated cuts, such as door jambs, it is recommended to use a jigsaw with a carbide blade



following the product safety instructions.

## Installation

Clean the entire area to be installed twice using a HEPA-filtered vacuum. Determine the best wall to start installation on - typically this would be the longest straight wall with a doorway (if present). Measure the width of the room and, allowing for two expansion gaps, calculate the width of your last row. If it is less than half the width of the floor covering, or if a balanced design is required, then reduce the width of the first row accordingly. Use a chalk-line to mark the outside edge of the first row on the substrate (see figure 5). If needed, trim the first row (the side without the extended locking mechanism) to fit, accounting for the expansion gap.

### First Row (Slide)

At the left corner of the starting wall, position the first tile or plank flush with the walls. Use the side and end without the extended locking mechanism against the walls. Place wedge spacers between the floor covering and wall to maintain the required expansion gap around the entire perimeter (see figure 6). Before connecting the second piece, lay it flat on the substrate, adjacent to the first row and lined up with the end of the previous piece. Then, while keeping the joint perfectly in line, slide the second plank into the first, locking the mechanism together (see figure 7). Complete the first row using this method. If there is a doorway, measure, mark and cut the flooring to make sure the cut edge will be located underneath the door jamb and frame while maintaining the required expansion gap. A jigsaw should be used for complicated cuts like these. Keeping the installation straight is critical, so check the first row using a chalk line or similar and, as needed, adjust and reinforce the row by adding more wedge spacers. The acceptable straightness tolerance is within 1/16-in. for lengths over 20-ft. or 1/32 in. for lengths under 20-ft. Complete the following rows starting with a cut piece, such as a piece from a previous row. Install the side joints before the end joints as instructed under "Side Joints" and "End Joints".

### Side Joints (Angle-Angle)

Starting at the left corner, place the side without the extended locking mechanism into the side of the previously installed row at a ~ 25° angle (see figure 8). Make sure the joint is seated properly, then slide the plank or tile into position (see figure 9). The end joint must line up perfectly. Lay the tile or plank flat and complete the end joint.

### End-Joints (Drop-Lock or Fold-Down)

Always check the alignment of the end joint and adjust if necessary. Lock the joint into place by lightly tap along the high side, starting from the "T", using a 2-lb. (~ 32-oz.) soft faced dead blow hammer or rubber mallet (see figure 10). Keep the striking head flat with the floor covering and tap until perfectly flush. If the locking mechanism does not

line up properly, then check and adjust the straightness as necessary.

## Additional Tips

Do not hit the locking mechanism directly with any hammer, tapping block or pull bar (except the last row) - doing so will damage the locking mechanism and may result in peaking, gapping or broken joints. If required, use a ~ 6-in. piece of scrap floor covering, seated in the locking mechanism, to lightly tap and close any joints.

If you need to install small cuts of floor covering that are < 3-in. in length or width, place a thin bead of liquid super-glue on the previously installed locking mechanism just before installing. This will ensure the pieces remain locked together during use. Do not get the adhesive on the surface - coverage will be ~ 30 ft. per oz.

After the first five or six rows are completed, turn around and continue installing, working on top of the installed material. This will allow the side joints to be pulled together rather than pushed together, which will make the installation even easier.

If you need to disengage the end joints for any reason, first unlock the side joints by lifting the outside edge of the row to ~ 25° and disconnect the entire row. Make sure all pieces are lying flat and are properly engaged (tap to engage, if required), then simply slide them apart. If they are angled or pulled upwards, the joint will break.

## Completion

If used, plastic sheeting must be trimmed flush with the surface of the floor covering. If installed in a wet area, plastic sheeting must be trimmed flush with the subfloor. When installing in wet areas, ensure the expansion gap and all vertical surfaces are filled or sealed with a 100% silicone caulk and ensure all wall-base and moldings are water-resistant, following to the Wet Area Guidelines. Install all necessary wall-base and/or moldings and ensure they are anchored to the substrate, wall or wall-base without compression, to allow movement. Do not anchor wall-base or moldings into or through the floor covering. Save three or more extra pieces of material in the original packaging as attic stock for the lifetime of the floor. **In the unlikely event of a product issue, attic stock can play a crucial role in product identification, color matching, product claim verification and possible repairs.**

## Protection

If required, protect the clean floor covering from other trades or heavy loads using ½-in. plywood or similar and tape all seams. For light traffic, use Ram board or similar and tape all seams. For furniture, use only polyurethane, silicon or felt glides (replaced > 3-times a year), keeping them clean and grit-free - all glides should be ≥ 1-in.<sup>2</sup>, especially on heavy furniture. Use protective polycarbonate chair mats designed for resilient flooring underneath rolling chairs or soft "W-type" wheels. Use non-rubber-backed entrance

Figure 1: Preparation - Undercut Doorjamb

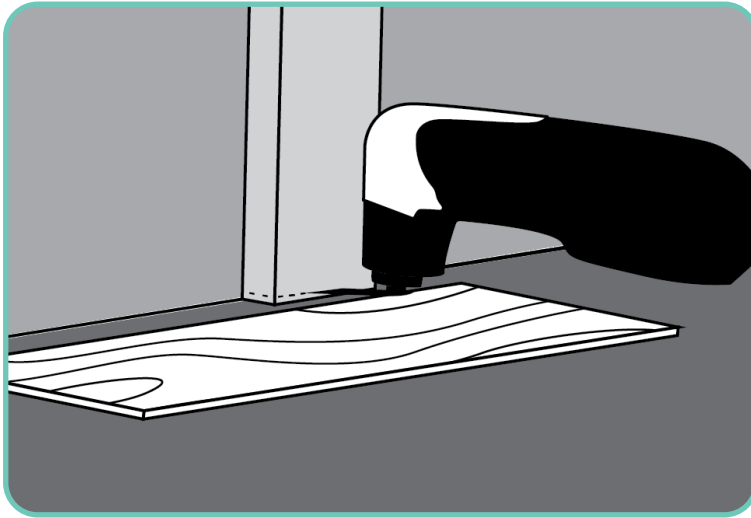


Figure 4: Cutting - Snap plank downward

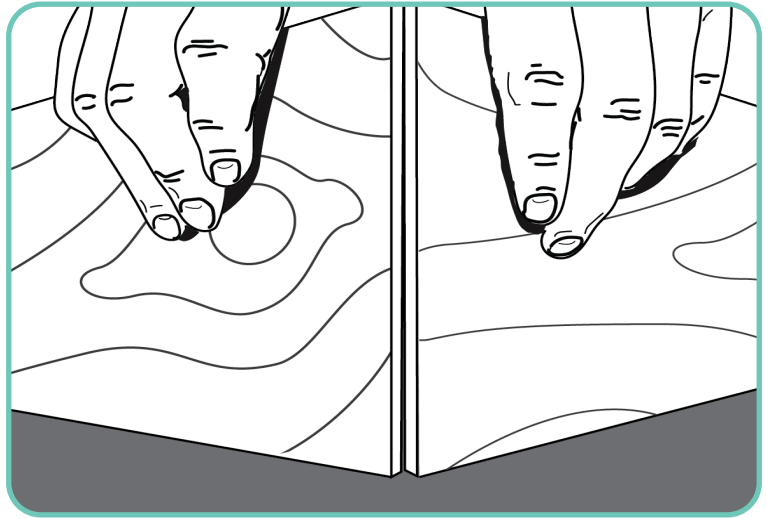


Figure 2: Layout - Stagger seams

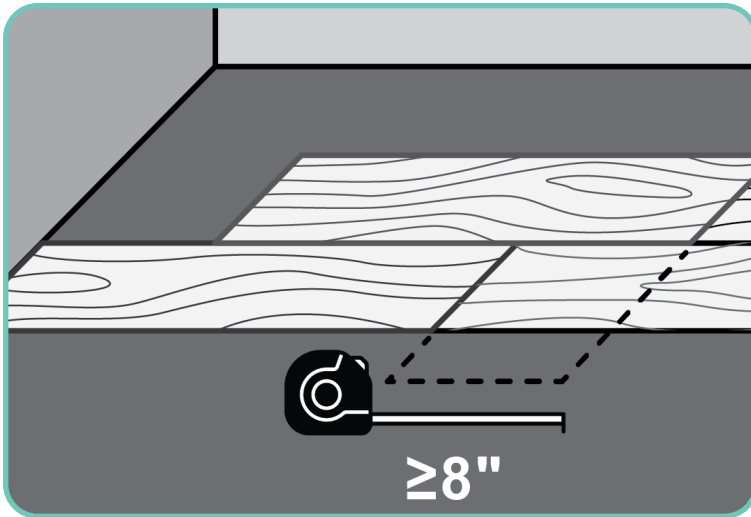


Figure 5: Installation - Mark the starting line

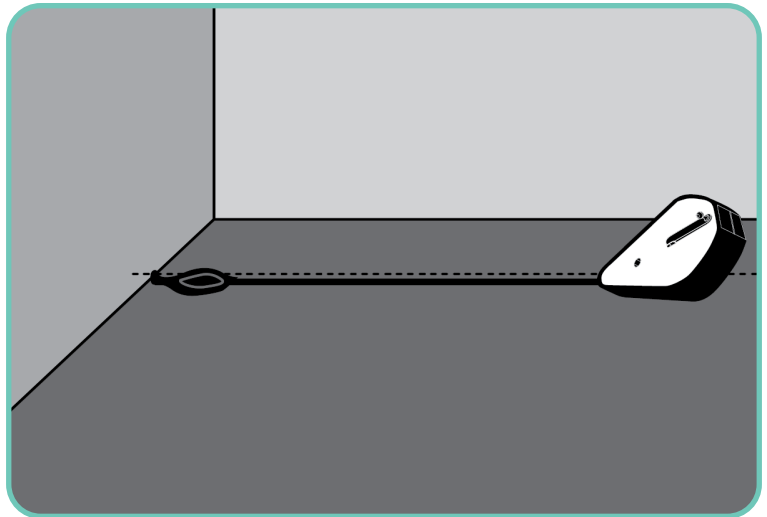


Figure 3: Cutting - Mark, score and cut

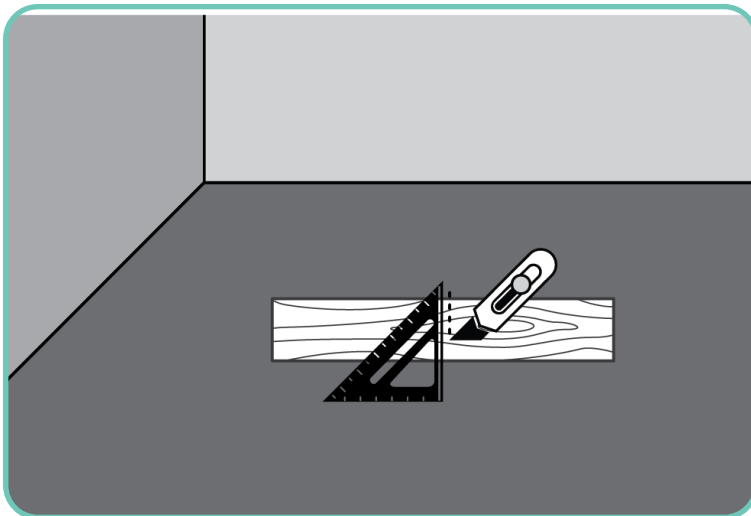
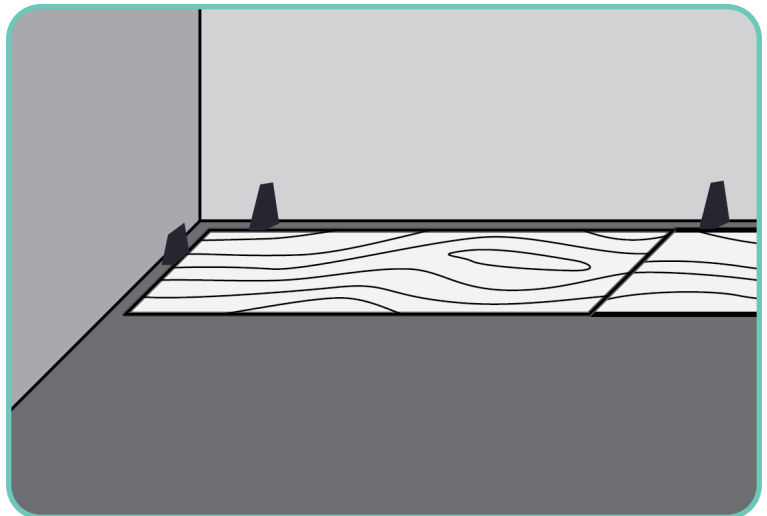
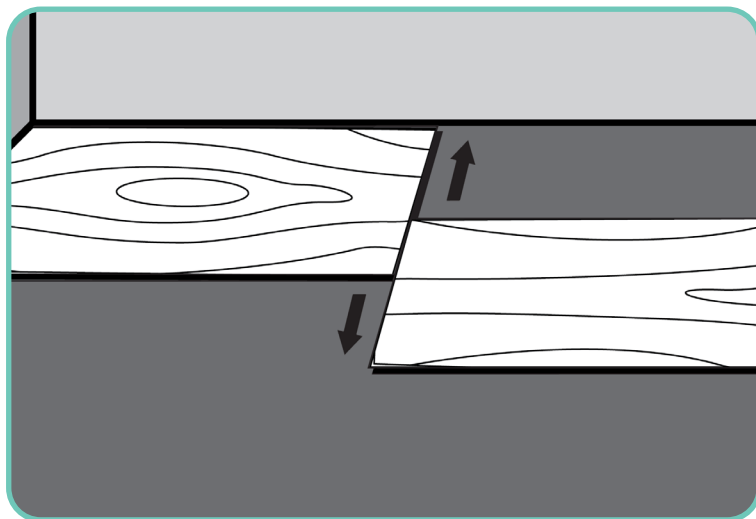


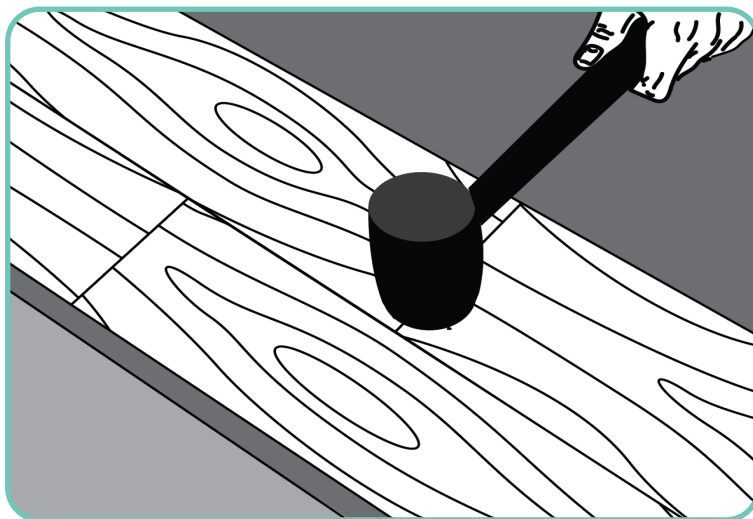
Figure 6: First Row - Place wedge spacers



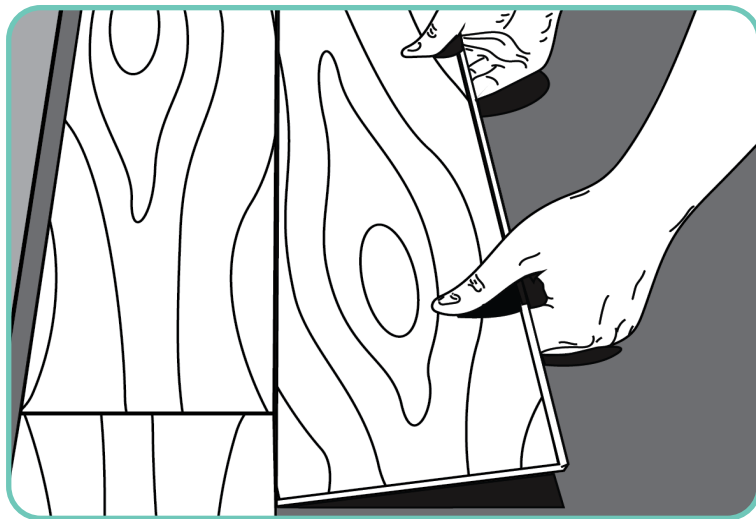
**Figure 7: First Row - Slide planks together**



**Figure 10: End Joints - Lock piece into place**



**Figure 8: Side Joints - Install piece at 25° angle**



**Figure 9: Side Joints - Align joint with previous**

