

INSTALLATION GUIDE



Waterproof Wood Core Flooring

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1. WHERE TO INSTALL

LifeProtect® flooring may be installed in most residential rooms on, above, or below grade. Do not install outdoors, in saunas, or in swimming pool areas. For kitchens, bathrooms, and laundry rooms, follow the Wet Areas instructions. For approved commercial applications, please refer to the warranty document for details on permitted commercial use.

2. PRE-INSTALLATION REQUIREMENTS

2.1 Safety Caution

Safety for Cutting

Always wear safety glasses and gloves when cutting this product. Use ear protection when operating saws or other power tools. Cutting, drilling, sawing, sanding, or machining wood products can create wood dust — a substance known to the State of California to cause cancer. Work in a well-ventilated area, avoid inhaling wood dust, and use a dust mask or other safeguards for personal protection. For more information, visit www.P65warnings.ca.gov/wood

Safety for Installing

Use knee pads to reduce strain and protect knees during installation. Ensure the work area is clean, dry, and free of obstructions. Follow all manufacturer instructions and applicable local building codes. If unsafe conditions or

equipment malfunctions occur at any time, stop work immediately until the issue is resolved. Owner will assume all responsibility for compliance with applicable building codes.

2.2 Tools & List of Material

Stage all tools and materials at the jobsite before starting. PPE is required (see 2.1). Choose underlayment/vapor barrier based on subfloor and product (see 3.2, 3.4): use 6-mil poly over concrete; do not add extra pad if the product has a pre-attached pad unless it is a CorkBase (<https://usmills.com/pages/corkbase>) underlay. For kitchens/baths, have backer rod (recommended) + 100% silicone ready (see 5.8).

Tools:

- Flooring installation kit (tapping block, pull bar, spacers)
- Tape measure, pencil, level, chalk line
- Hammer/rubber mallet
- Circular/table/jig/hand saw with carbide-tipped blades
- Utility knife, drill
- Caulking gun
- Vacuum (final clean)
- PPE: safety glasses, gloves, hearing protection, dust mask/respirator, knee pads

Materials:

- Extra Underlayment (only if Corkbase)

- 6-mil virgin polyethylene moisture barrier for when installing over concrete
- Expansion spacers 3/8"
- 3/8" PE foam backer rod (for perimeter sealing in wet areas)
- 100% silicone sealant (for perimeter sealing in wet areas)
- Coordinating moldings/trim
- Felt furniture pads

2.3 Before Installing

- Read the complete installation instructions from start to finish before beginning.
- Improper installation, failure to meet environmental requirements, or using unapproved methods will void the warranty.
- The floor is designed for **floating installation; do not glue or fasten planks** unless specifically instructed.
- Mix planks from several cartons to achieve a natural color and shade variation.
- Inspect all planks for color, finish, and defects in good lighting before and during installation. Do not install defective planks. **Visual defects are not covered by warranty.**
- Recommended installation direction: generally parallel to the longest wall or in the direction of natural light.
- Maintain required environmental conditions before and during installation:

- Room temperature: **60°F–85°F** (16°C–29°C)
- Relative humidity: **35%–65%**
- Leave proper **expansion space around all vertical structures** as specified in the installation guide.
- Document the install date, site RH, temperature, and subfloor moisture content. For everything to check before you start, use the Jobsite Checklist at the end of this document.

2.4 Owner / Installer Responsibility

- Inspect the flooring for color, finish, sheen, size, and visible defects prior to and during installation. Do not install defective planks; **installation constitutes acceptance**. Your flooring supplier cannot accept responsibility for flooring installed with visible defects.
- Ensure the jobsite and subfloor meet all structural and environmental requirements outlined in the installation guide and is compliant with all local building codes.
- Follow all manufacturer instructions and applicable local building codes.
- Use only materials, accessories, and installation methods recommended in the guide.
- Flooring failures resulting from subfloor deficiencies, site damage, or improper installation will not be covered by the warranty.

2.5 Preparing the Room

- Remove all moldings; undercut door jambs/casings to allow flooring + pad and the required expansion gap.
- Verify door clearances; plan layout so that the last row is wider than 2" in width (rip the first row if needed).
- Mix planks from multiple cartons to blend color/shade.
- Keep product in packaging while conditioning; maintain 60–85°F and 35–65% RH until installation.

2.6 Jobsite Conditions

- Ensure all wet trades (e.g., new concrete, drywall/plaster, plumbing) are completed and fully dry well before installation.
- Keep the space enclosed and climate-controlled. Maintain 60–85°F (18–27°C) and 35–65% RH before, during, and after installation.
- The jobsite and subfloor must be clean, dry, stable, and debris-free prior to installation; thoroughly sweep/vacuum the area.
- Verify the subfloor meets structural and flatness requirements (see 3.2 Concrete and 3.3 Wood; flatness 3/16" per 10 ft).
- Moisture control: Over concrete (on or below grade), plan and install 6-mil virgin polyethylene vapor barrier per 3.2; over wood, do not use a vapor barrier (see 3.4).
- Documentation: Record ambient temperature/RH, subfloor moisture readings (per 3.2/3.3), flatness

checks, and installation date; retain with product labels/receipts.

3. SUBFLOOR AND SITE PREPARATION

3.1 Concrete Subfloor Requirements

Concrete subfloor must be cured, clean, flat and level (3/16 in for every 10 ft). Minimum moisture barrier is 6 mil (0.006 in) virgin polyethylene sheet with seams overlapping 4"–6" and taped together with a waterproof adhesive tape (minimum density of 0.90 lbs/ft³.)

Concrete subfloor must have a moisture content of:

- Less than 5% as per Tramex Concrete Moisture Encounter or;
- Less than 3 lbs. per 1,000 square feet per 24 hours per Calcium Chloride test (ASTM F-1869) or;
- Less than 2.5% per Calcium Carbide (CM) Test (ASTM D-4944-04 modified).
- Installing over wet or damp concrete should be avoided to prevent mold/mildew.

Floor flatness is essential. Any low spots should be filled with self-leveler and allowed for full curing, and higher spots should be grinded.

3.2 Wood Subfloor Requirements

Wood subfloor must be clean, flat and level (3/16 in for every 10 ft). If there are any uneven areas that exceed this, level them out in advance with a leveling paste or sand down high spots. Wood subfloor must have moisture content of less than **12%**. Wood subfloor must be structurally sound. Nail or screw every 6" along joists to avoid squeaking. Suspended wood subfloors must provide a minimum of 18" of well-ventilated air space above the ground which shall be covered with a suitable vapor barrier.

3.3 General Subfloor & Underlayment Requirements

Sound reducing underlayment is required for flooring without attached underlayment. The underlayment will require an integrated moisture barrier or a separate 6 mil virgin polyethylene sheet when installed over concrete when installed on or below grade (if not warranty will be void). Pairing Corkbase underlayment is permitted.

3.4 Existing Floor Covering

This flooring may be installed directly on top of sheet vinyl, vinyl composite tiles (VCT), and ceramic or porcelain tile, when these items have been installed on a wooden subfloor (excluding loose lay vinyl). The subfloor and existing covering must be structurally sound and meet all the necessary flatness and moisture requirements. Never use a vapor barrier when installing over a wooden subfloor. If the previously mentioned flooring types have been installed directly on concrete, then a 6-mil vapor barrier must be installed and

overlapped at least 6" along any seams and run up the wall by minimum 1".

In all cases, regardless of subfloor, all types of carpet and padding (including the old glue if applicable) must be removed, and the normal subfloor instructions would then apply. If an existing floor covering is being removed before installation, please consult a specialist regarding the safety of handling and disposal of the existing materials before beginning.

3.5 Radiant Heated Floors

This product can be installed over radiant heated floor provided where the heating element is installed into a concrete subfloor. Lower heating system to 60°F for 1 week before installation. After installation, slowly increase the temperature in increments of 10°F per hour. The finished floor surface temperature must not exceed 85°F throughout the service life of the floor.

3.6 Wet Areas

- Indoor use only. Do not install in saunas, swimming-pool areas, or outdoors.
- Kitchens, bathrooms, laundries, mudrooms: a watertight perimeter is required. Use the method in 5.8
- (Installation in Kitchens & Bathrooms 3/8" PE backer rod + 100% silicone at the entire perimeter), and seal around all fixed objects and door frames before installing moldings.

- Standing water: wipe up promptly; do not flood the floor. Where no molding is possible, fill the expansion gap with 100% silicone so the floor remains unrestrained and sealed.
- Exterior doors & toilet flanges: ensure perimeter gaps are fully sealed with 100% silicone after installing the floor.
- Allow sealants to cure per manufacturer guidance (~24 h before routine wet use).

4. MATERIAL CONDITIONING

4.1 Acclimation & Storage

Store the flooring in the room where they are to be installed for a **minimum of 48 hours**, still in their packaging, and at normal living conditions, i.e., room temperature of **60°F-85°F** and relative humidity (RH) level of **35%-65%**, prior to beginning installation work. Store **horizontally** and well away from the walls. If acclimation time is not available, it may be skipped provided the difference between the storage or transport conditions and the installation site does not exceed 20°F in temperature and 15% in relative humidity

4.2 Expansion Gaps

Room and house humidity and temperature will change throughout the year with buildings expanding and contracting between seasons, therefore;

- Allow **expansion gap of 3/8" around the perimeter of the floor and all vertical structures**

(walls, door jambs, kitchen islands, fire places, floor vents, pipes, thresholds, etc.). Floors spanning greater than 45 ft, length or width might require expansion T-molding or larger expansion gaps. Wall openings, with or without door, might require expansion T-molding. Door frames require special care as 3/8" expansion gaps also need to be applied around door frames.

- A T-molding is required for lengths over 40ft if installed in long and narrow hallways.
- Certain pieces of heavy furniture (bookcases, pianos, ...) can hinder the expansion and contraction of the flooring. In this case consider leaving a larger expansion gap to be later covered with a thicker base board or shoe molding. T-molding is also required when the installation changes direction through the doorway.
- To avoid damaging the flooring, do not screw directly through it when installing kitchen cabinets, appliances, barn doors, or other objects. Instead, secure the objects to the subfloor or wall studs, ensuring that the flooring remains floating, unobstructed and unperforated. This approach prevents potential issues like buckling, warping, or voiding the warranty of the floor.
- **Trim Clearance**. Never fasten trim to the floor but only to the wall or baseboard and do not restrict or pinch the flooring's movement under the molding or baseboards but allow it to "float" freely. Slip a thin shim (1/16") like a business card or washer under the quarter round or baseboards while

nailing and then remove them to ensure the trim doesn't clamp the floor.

5. INSTALLATION PROCESS

5.1 Helpful Considerations

- Work in a well-lit area.
- Remove all existing moldings.
- Install flooring perpendicular to the direction of the floor joists. If possible, install the boards parallel to the direction of the light entering the room.
- Install the underlayment in the same direction that the flooring is to be installed. Tape all seams.
- Stagger end joints but avoid stair-stepping appearance by varying stagger distances between adjacent rows.
- Minimum stagger distance is 12". Starter and end pieces need to be minimum 10" in length.
- Check door clearances, making necessary adjustments before laying the floor.

5.2 Installation Method

Flooring can be both installed using the Angle-Tap (A.) or Angle-Angle (B.) installation method.

A. Angle-tap Installation Method

5.3 Installing the First Row

- a. Begin installation from the straightest wall. If possible, install the floor perpendicular to the floor joists.
- b. Use a carbide-tipped circular saw blade to remove both the short and long side tongues from the plank to allow room for spacers. Do not trim the groove sides. (Figure 1) Always cut the flooring boards with the décor or face side down.
- c. Before starting installation measure the width of the room and divide by the width of the plank. If the last row would be less than 2.5" wide, trim this first row so the final row will be minimum 2.5" wide.
- d. Trim the long side tongue from each plank needed to complete the first row. Install the planks from left to right. Place 3/8 in spacers between the wall and the cut edge of the planks to ensure a 3/8 in space along the perimeter. (Figure 2)
- e. Adjoin the planks by using a tapping block as shown and gently tap until the planks are joined. Position the notched edge of the tapping block so it rests securely against the laminate surface and not directly on the HDF profile or locking system. Continue this process until the final plank for the row is needed. (Figure 3)

5.4 Completing a Row

- a. When cutting a plank used for completing a row be sure to allow for the proper 3/8 in gap once the plank is installed. (Figure 4)
- b. Use a pull bar—not a tapping block—to close any remaining gap between the two planks and

complete the row (Figure 5). If the off-cut from the last plank is at least 10" long, use it to start the next row.

5.5 Installing the 2nd and Remaining Rows

- a. Begin installing the second row by angling the plank to allow the tongue to slip into the groove of the plank in row 1. (Figure 6) Maintain inward pressure (towards the previous row) while gently moving the plank up and down as you slowly push the plank to the floor. (Figures 6A & 6B) Do not force the plank to the floor if the tongue is only partially inserted into the groove. (Figure 6C)
- b. Install the next plank by placing it near the previous plank in the row and laying it flat to the floor while leaving a small gap (2-3 mm) between the short ends of planks D and C. (Figure 7)
- c. Once the plank is flat, use the tapping block to tap the end into a locked position. Then, placing the tapping block no closer than 8 in from either end, tap lightly along the long side to ensure the joint is fully seated and no gaps exist. (Figure 8) Note: Uneven tapping or use of excessive force may damage the joint.
- d. Continue laying the floor from left to right, as described in the previous steps. (Figure 9) Remove the short side tongue from any full planks used in starting a new row.
- e. Trim the planks to be used in the final row to the desired width while taking into consideration the

necessary gap of 3/8 in needed between the planks and the wall. Install the final row as described in the previous steps. (Figure 10)

5.5 Installing the Last Row

Use the pull bar to draw the last row to fit tightly to the previous row. Where angling of the plank is impossible the plank can be laid flat on the subfloor and tapped in horizontally on the long side (as on the short side).

5.7 Finishing the Installation

- Remove all spacers (Figure 11)
- Make sure when installing the moldings not to obstruct the flooring from being able to expand or contract.
- Never nail moldings into your floor or have the floor touch the sides of the moldings. Any caulking must be done with silicone caulking and never hard caulk moldings to the laminate flooring planks.
- For a clean, finished look around pipes, install rosettes (escutcheons) or apply a bead of flexible 100% silicone around the penetration.
- Where profiles/moldings can't be used, fill the expansion gap with flexible 100% silicone so the floor can still move.

5.8 Installation in Kitchens & Bathrooms

- Create a watertight seal by first filling the entire expansion perimeter, T-molding spaces, and other open areas with 3/8" in compressible PE foam backer rod (recommended).
- Next cover the backer rod and any remaining gaps with 100% silicone sealant. DO NOT use acrylic sealants.
- Prior to installing the moldings, apply silicone sealant to the portion of the molding or transition that will contact directly with the laminate flooring surface.
- Install moldings and immediately wipe away any excess silicone sealant.
- Apply silicone sealant at connections to door frames, T-joint moldings, or any other fixed objects
- Make sure when installing the moldings **not to obstruct the flooring from being able to expand or contract**. Never nail moldings into your floor or have the floor touch the sides of the moldings.

5.9 Installation Around Pipes

- When the layout includes plumbing or other round penetrations, plan the run so the opening falls at a short-end seam. This keeps the expansion clearance controlled and avoids weakening a single plank.
- Align the layout so the pipe lands on a short-end joint between two planks.
- Dry-fit and lock the two planks together at the short end; mark the pipe center on the seam.

- Drill a clearance hole = pipe diameter + 3/4" centered on the joint to maintain expansion.
- Set the assembled pair back in place over the pipe and continue installation. Use a trim escutcheon to cover the opening; in wet areas, seal per 5.8.
- Where angling of the plank is impossible the plank can be laid flat on the subfloor and tapped in horizontally on the long side (as on the short side).

5.10 Installation Under Door Frames

- Maintain clearance at doors. Leave an expansion gap $\geq 3/8$ in beneath door leaves/frames. Where angling of the plank is impossible the plank can be laid flat on the subfloor and tapped in horizontally on the long side (as on the short side).
- If the joint still can't be closed due to moldings/jambs: modify the profile on the installed-row plank by removing a small portion of the groove (plane or sand). Apply a small bead of PVA wood adhesive to the tongue of the next plank and slide it into place on the flat. Wipe excess glue with a damp cloth/warm water and tape the joint until the adhesive sets.

B. Angle-angle Installation Method

The steps above in angle-tap installation remain the same except for the way the planks are interlocked.

When using the angle-angle method, hold the new plank at 20-30° angle to the row already in place. Engage the

long tongue into the groove of the previous row and lower the board until it clicks. Keep the new plank slightly lifted and angle it into the end of the adjacent plank in the same row. Once both the long and short sides are engaged, press or tap the plank down until the joints are fully closed.

6. POST INSTALLATION

6.1 After Installation

- Vacuum/dust mop to remove all installation dust/debris.
- Retain product label, subfloor moisture readings, and receipt for records.
- Install coordinating moldings where required (without restraining the floating floor).

6.2 Precautions

- Use felt or soft rubber caps under furniture and chair legs; use soft rubber casters or a protective mat under rolling chairs
- Place solid-backed entry mats at exterior doors to limit dirt, water, and grit.
- Maintain indoor humidity **35–65% RH** (use humidifier/dehumidifier as needed).

6.3 Maintenance

- Dry care: dust mop or vacuum with a soft-bristle tool; no beater bars or spinning heads.

- Damp care: use an approved laminate cleaner or plain water applied lightly to a cloth/mop; never put moisture directly on the floor; dry thoroughly after cleaning.
- Do not use: wax, polish, oils, soaps, detergents, shine restorers, or non-residential steam cleaners.
- Steam mop (allowed – residential use): Permitted when used correctly. Use a microfiber pad and the lowest steam setting; keep the mop in continuous motion (no stationary steaming), avoid concentrating steam at plank edges, joints, trims, or transitions, and do not allow moisture to pool. Wipe any visible moisture and dry the surface immediately after. Approved LifeProtect® cleaning product information available on Lifeprotectflooring.com

6.4 Repair

- Minor damage: fill small chips/scratches with a color-matched filler/touch-up kit.
- Board replacement (2 options):
 - Disassemble back to the damaged area, replace the plank, and re-assemble the floor;
 - Cut-and-remove: if the damaged plank is in the middle and cannot be removed easily it can be removed by partially cutting it and removing the pieces. (Consult an experienced installer if you need help replacing a plank in the middle of your room). Specialized tools are available to help with the replacement of these boards.

- Keep spare planks on hand for future repairs.

