

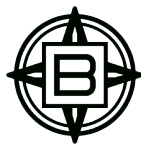


BERING
FLOORS & COVERINGS



WATERPROOF HYBRID FLOORING

Installation Guidelines



NOTICE: Please check for proper color selection and style prior to Installation. Claims cannot be accepted after installation has begun.

Important Information Before You Begin

Carefully inspect all materials before installation. Materials installed with visible defects are not covered under the warranty. Do not install - if you are not satisfied with the flooring; contact your dealer immediately. Final quality checks and approval of the product is the sole responsibility of the owner and installer. Make sure you are installing the correct color; no claims will be accepted for color once the material is installed. Please read the provided warranty for your product before installation. The installer must determine that the job-site environment and sub-floor surfaces meet applicable construction and material industry standards. We recommend the use of experienced professional installers. The Manufacturer declines any responsibility for job failure resulting from deficiencies caused by sub-floor or job-site environment or installation related items. All subfloors must be clean, flat, dry, and structurally sound.

Basic Tools & Equipment

Broom or vacuum, moisture meter, chalk line & chalk, tapping block, tape measure, spacing wedges, safety glasses, hand or electric saw, miter saw, hand or power jam saw, hammer, pry bar, straight edge, and tapping block. Failure to use a tapping block properly when installing waterproof hybrid flooring can/will cause splintering. **NEVER STRIKE THE EDGE OF THE FLOORING WITH A Mallet/Hammer or Improperly use the Tapping Block.**

Recommended Installation Methods

Waterproof hybrid flooring products are intended to be installed as a floating floor system only. Do not secure flooring to underfloor with adhesives, or mechanical fasteners. Floor movement must not be constrained by glue, nails, screws, hardware or other fixed obstructions.

Pre-Installation Checklist

- Verify that the product color and specifications match expectations.
- Calculate the areas to receive new flooring prior to installation. It is recommended to plan an additional 5%-10% of product to allow for cutting and waste during installation.
- For concrete subfloors, install a 6 mil polyethylene vapor barrier with overlapped seams of 8" or more.
- Considerations for transitions must be made at substrate changes, room to room environment changes, extremely complex layouts, subfloor elevations, or areas larger than recommended. The continuous installation area cannot exceed 3,000 square feet and no greater than 55 linear feet length or width without a T-mold expansion break. Verify that adequate transitions were provided prior to installation.



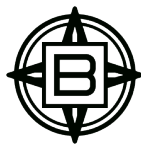
Job site Conditions

Handling & Storage

- Do not truck or unload waterproof hybrid flooring in the rain, snow, or other humid conditions.
- Store waterproof hybrid flooring in an enclosed building that is well ventilated with weatherproof windows. Garages and exterior patios, for example, are not appropriate for storing waterproof hybrid flooring.
- Store cartons flat and never on edge.
- Whenever possible make use of material-handling equipment such as dollies or material carts. Never lift more than you can safely handle and get additional assistance.
- Leave adequate room for good air circulation around stacks of flooring.
- Waterproof hybrid flooring should be acclimated for a minimum of 24 hours in sealed unopened cartons. If there is no time for acclimation, there should be no more than a difference of 20 Degrees F and 20% relative humidity between the stocking/transportation environment and the flooring and the final installation environment of the flooring.

Job site Conditions

- Waterproof hybrid flooring is approved for interior installations only and should not be installed over any floor with a sump pump or in a room with a floor drain.
- Waterproof hybrid flooring is not approved for use in high-humidity areas where the floor is usually wet such as steam rooms, saunas, pool areas or outdoor areas.
- Waterproof hybrid flooring can be installed above, or on below grade applications.
- A moisture test is strongly recommended to determine if high moisture exists in the subfloor. When using a calcium chloride moisture test for concrete subfloors (ASTM F1869), values must be $\leq 5 \text{ lbs./1000ft}^2 / 24\text{-hr}$ or $< 80\% \text{ RH}$ with an in-situ probe (ASTM F2170). Moisture readings of wood subfloors must be $\leq 12\%$.
- Acceptable job site conditions, including relative humidity and subfloor moisture conditions, must be maintained throughout the life of the flooring.
- Waterproof hybrid flooring should be one of the last jobs completed in a construction project. Prior to installing the floors, the building must be structurally complete and enclosed, including installation of all exterior doors and windows. All finished wall coverings and painting should be completed. Concrete, masonry, drywall, and paint must also be complete, allowing adequate drying time to not raise moisture content within the building.
- HVAC systems must be fully operational at least 7 days prior to flooring installation, maintaining a consistent room temperature between 60-85 degrees and relative humidity between 30-50%.



Job site Conditions (continued)

- Flatness required as follows- 3/16" in 10' or 1/8" in 6'. Floating floors requirements are more stringent. Sand high areas and joints. Ensuring flooring flatness and structural soundness is the responsibility of the installer.
- Remove any previously installed floor coverings, pad, or underlayment so long as they are asbestos-free.
- Never install waterproof hybrid flooring over an existing wood floor or wood substrate that is directly over concrete.

Subfloor Preparation

Wood Subfloors

- Sub-floor must be structurally sound and properly secured with nails or screws every 6 inches along joists to reduce the possibility of squeaking.
- Wood sub-floors must be flat, dry, structurally sound and free of wax, paint, oil, and debris. Replace any water damaged or delaminated sub-flooring or underlayment. Flatness - – 3/16" in 10' or 1/8" in 6'
- Additional requirements for flatness are required for floating floors as stated in installation guidelines.
- Preferred sub-floors - 3/4" CDX Grade Plywood or 3/4" OSB PS Rated sub-floor/underlayment, sealed side down, with joist spacing of 19.2" or less; Minimum sub-floors - 5/8" CDX Grade Plywood sub-floor/underlayment with joists spacing of no more than 16". If joist spacing is greater than 19.2" on center, add a second layer of sub-flooring material to bring the overall thickness to 1-1/8" for optimum floor performance. Hardwood flooring should be installed perpendicular to flooring joists. If flooring is installed parallel with joists, then an additional layer of 1/2" plywood must be installed to meet minimum requirements of 1-1/8".
- Sub-floor moisture check. Measure the moisture content of both the sub-floor and the hardwood flooring with a pin moisture meter. Sub-floors should not exceed 12% moisture content. If sub-floors exceed this amount, effort should be made to locate and eliminate the source of moisture before further installation.
- It is essential that basements and crawlspaces are dry. Crawl spaces must be a minimum of 18" from the ground to underside of joists. A vapor barrier must be established in crawlspaces using 6 mil black polyethylene film with joints overlapped and taped.

Concrete Subfloors

- Concrete slabs must be of high compressive strength with minimum 3,000 psi. Concrete sub-floors must be clean, flat, dry, structurally sound, smooth, and free of wax, paint, oil, grease, dirt, non-compatible sealers and drywall compound etc.
- Concrete substrates must meet or exceed guidelines for flatness – 3/16" in 10' or 1/8" in 6'
- Additional requirements for flatness are required for floating floors as stated in installation guidelines.



Concrete Subfloors (continued)

- Concrete on or below grade require a vapor barrier retarder directly beneath the slab.
- High or low spots in the slab should be either filled with a high-quality Portland based patching or leveling compound or ground down.
- Concrete sub-floors should always be checked for moisture content prior to the installation of waterproof hybrid flooring. Standard moisture tests for concrete sub-floors include relative humidity testing, calcium chloride test and calcium carbide test.
- Measure the moisture content of the concrete as per ASTM F1869 and ASTM F2170 as previously outlined above.
- Bering Finishes will not assume responsibility for floor covering failure due to hydrostatic pressure or moisture vapor emission. New concrete slabs should be sufficiently dry (at least 50 days) and completely cured.
- Excessive subfloor moisture can be an ideal breeding ground for mold, mildew, and fungus – all of which can contribute to an unhealthy indoor environment. The Limited Warranties do not cover discoloration from mold, or flooding, leaking plumbing or appliances, water entering through sliding glass doors or other similar situations.

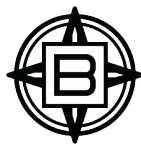
Subfloors other than wood or concrete

- Ceramic, terrazzo, resilient tile and sheet vinyl, and other hard surfaces are suitable as a sub-floor for waterproof hybrid flooring installation.
- The above tile and vinyl products should be level and permanently bonded to the sub-floor by appropriate methods. Clean and abrade surfaces to remove any sealers or surface treatments to insure a good adhesive bond. Do not install over more than one layer that exceeds 1/8" in thickness over suitable sub-floor.
- Additional requirements for flatness are required for floating floors as stated in installation guidelines.

General Radiant Heat Installation Instructions

(Refer to NWFA Appendix H "Radiant Heat Installations")

- To minimize the effect that rapid changes in temperature will have on the moisture content of the waterproof hybrid floor, it is recommended that an outside thermostat be installed. If one is not present, suggest to your customer that this should be considered. Unlike conventional heating systems, which switch on as needed, radiant systems work most effectively and with less trauma to the waterproof hybrid floor if the heating process is gradual, based on small incremental increases in relation to the outside temperature.



General Radiant Heat Installation Instructions (continued)

- Subfloors should have proper moisture tests according to the moisture testing procedures outlined above.
- The essential requirement in proper applications of waterproof hybrid flooring over radiant heated systems is to avoid penetration of the heating element. Radiant-heated subfloor systems can be concrete, wood or a combination of both.
- If the subfloor is concrete and it has cured, turn the heat on, regardless of season, and leave it on for at least 5-6 days to drive out residual moisture before installation of the waterproof hybrid flooring.
- Some installation systems may require the heat to be reduced or even turned off before installation of the flooring begins, so the adhesive does not cure excessively.
- With water-heated radiant-heat systems, a pressure test must be performed and documented by a qualified plumber or the system installer prior to beginning the installation of the waterproof hybrid flooring.
- If flooring materials that conduct heat at different rates are on the same circuit or heating zone, check with the HVAC mechanical engineer before proceeding. Ensure that floor temperature does not exceed 82 degrees. The use of an in-floor temperature sensor is required to prevent the subfloor from exceeding the temperature of 82 degrees.
- Radiant heat is dry heat. A humidification system may be necessary to maintain flooring in its comfort zone of 30%-50% R.H.
- Radiant Heating mats are acceptable if designed and warranted to be used with waterproof hybrid flooring by their manufacturer. Electric mat products cannot exceed 80F.

Installation

Preparation

- To achieve a uniform color and shade mixture across the entire floor, open and work from several different cartons at a time.
- Stagger the ends of boards and maintain at least 6" between end joints on all adjacent rows when material permits.
- Undercut door casings 1/16" higher than the thickness of the flooring being installed. Also remove existing moldings.
- Start installation parallel to the longest unbroken wall. An outside wall is often used, however ensure all walls are straight/plumb prior to beginning.
- Expansion space shall be left around the perimeter at least equal to the thickness of the flooring material. For floating installation, the minimum expansion space shall be 1/2" regardless of the thickness of the material.

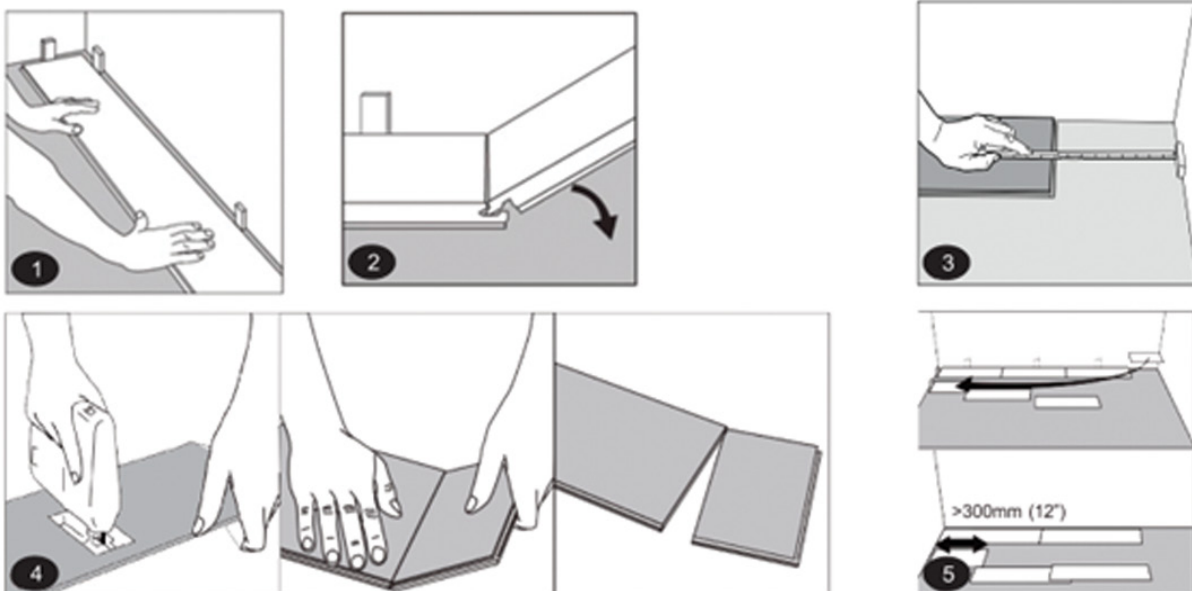
Floating Installation Guidelines

- Before installing flooring, read all installation instructions.
- Sub-floor flatness is critical to the success of a floating floor installation. A flatness tolerance of 1/8" in a 10-foot radius is required for floating floor installation.



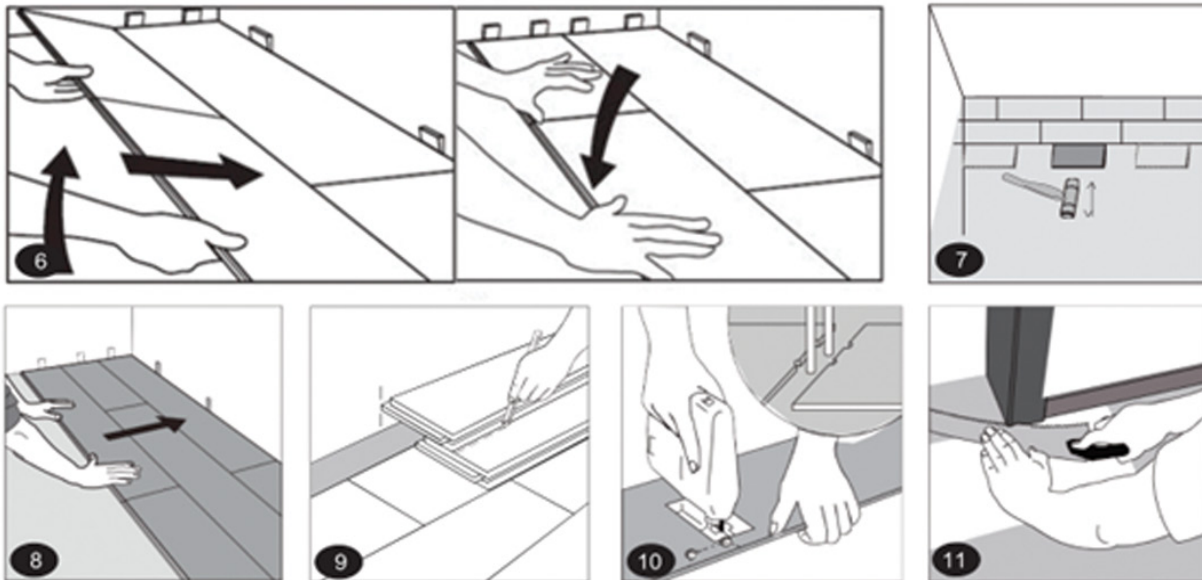
Floating Installation Guidelines (continued)

- Follow underlayment manufacturer instructions for either a wood or concrete subfloor application. If concrete sub-floor, it may require the addition of a 6 mil poly film if the underlayment does not have a minimum of a 6 mil poly film attached. Do not tape seams of poly over wood subfloors.
- Remove baseboard, quarter round moldings, wall base, appliances from room.
- Undercut all door casings at 1/16" higher so the new flooring will fit underneath. Make the cut using a power jamb saw, oscillating cutter, or a hand saw. Be certain to allow enough room under the casing for an expansion gap.
- Minimum expansion space at all vertical surfaces is 3/8" (9.53 mm)
- Snap a working line parallel to the starting wall, allowing expansion space as specified above.
- Measure the area to be installed: The board width of the last row should not be less than 2" (50mm). As needed, adjust the width of the first row to be installed.
- Whenever possible, plan the layouts so that the joints in the planks do not fall on top of joints or seams in the existing substrate. The end joints of the planks should stagger a minimum of 8" (20.32cm) apart. Do not install over expansion joints. Avoid installing pieces shorter than 12" (30cm) at beginning or end of rows.
- Maximum span without a transition is recommended as stated above. Additionally, it is recommended that transitions be installed at any doorway or opening 36 inches or less. Without the use of t-molds buckling of the floors or separation may occur at doorways
- Thoroughly clean, sweep, and vacuum installed floor and inspect the floor for scratches, gaps, and other imperfections. Do not apply any tape directly to the installed flooring to hold down floor protection. The new floor can be used after 12-24 hours depending upon the allowed cure time of the adhesive.





Floating Installation Guidelines (continued)



1. After thoroughly cleaning the subfloor, begin laying planks from left to right. Position the first plank so that the grooved edge is facing you cutting off the tongue edge. Place the plank 3/8" (8mm) from the left wall by using spaces between the wall and the flooring plank.
2. Align the second plank of the first row against the end joint of the first plank of the first row at a slight angle and fold down until joints lock. Make sure that the click system is engaged tightly. Any gapping can compromise the integrity of the installation.
3. At the end of the first row, leave an expansion gap of 3/8" (8mm) to the wall and measure the length of the last plank to fit.
4. To cut the plank, use a saw with the plank facing up.
5. Start the second row with the leftover plank from the previous row. This small plank should measure at least 12" (30cm), if it does not then a new plank will need to be cut in half and used to begin the second row. The end joints of each adjoining row should not be closer than 8" (20cm) to each other. Whenever practical, use the piece cut from the preceding row to start the next row. End joins of all planks should be staggered 6" or more.
6. Raise the long edge of the plank upward approximately 1" as shown above. Maintain this angle as you push the plank in until the long edge of the plank meets the long edge of the first row. Rotate downward on the plank until the joint locks. Gently tap the long side joints closed, if necessary, using your scrape piece as a tapping block.
7. Helpful Hint: After finishing the installation of every row, use scrap pieces and a small hammer or rubber mallet to gently tap the planks into the click of the previous row to make sure they are tightly clicked together and make sure there is not gap between the long side of the planks installed.



Floating Installation Guidelines (continued)

8. Continue this method throughout the installation.
9. For the last row, ensure that there will be a 3/8" (8mm) gap (after the joint is closed) to the wall for expansion. Align the plan 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.
10. Allow 3/8" (8mm) expansion space around pipes or other vertical or fixed objects.
11. Slide plank under the pre-cut door frame.

Post-Installation Guidelines

- Remove all spacers.
- Moldings cannot be secured through the waterproof hybrid floor to the substrate. Always ensure the flooring can float freely within and under the moldings. Never had caulk moldings to waterproof hybrid floor any caulking must be done with 100% silicone caulking.
- For traditional "Wet Areas" such as kitchens and bathrooms:
- Fill all expansion spaces with 3/8" 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 floor surface.

Repairs

- If a plank is slightly damaged or chipped, fill the void with a Color Matched Filler. Many products are available to fill small chips; such as Robert's Universal Flooring and Furniture Repair Kit.
- If a plank is severely damaged and must be removed and replaced the flooring will need to be disassembled back to the damaged planks. Determine the shortest distance from a sidewall and move the molding. Carefully lift up and out the panels and remove the entire row back to the damaged area. Replace the damaged plank and reassemble the flooring.
- If the planks are not damaged, waterproof hybrid flooring can be carefully disassembled and reassembled several times.
- Some circumstances may require a single plank replacement as a better option for the repair. You can find examples of how this is achieved by searching for similar videos online.
- Install moldings and immediately wipe away any excess silicone sealant.
- Apply silicone at connections to door frames or any other fixed objects.
- Thoroughly clean, sweep, and vacuum installed floor and inspect the floor for scratches, gaps, and other imperfections. Do not apply any tape directly to the installed flooring to hold down floor protection.
- Check jobsite thoroughly for any adhesive residue left on flooring.