

## - Installation Guide

Waterproof HDPC® Hardwood Flooring is a 100% waterproof engineered wood plank flooring that bonds a real wood veneer to our HDPC (High Density Plastic Composite) backing to form one plank and features the Uniclic™ locking system and is installed as a glueless floating floor. The interlocking planks lock together, can be installed over most floor surfaces, and is suitable for both residential and light commercial interior applications.

### General Information

**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](http://www.P65Warnings.ca.gov/wood)

1. Purchase enough flooring to cover 105% of the area measured, this will allow for waste.
2. Flooring should be transported and stored in a neatly stacked fashion on a smooth flat surface.
3. Acclimation is beneficial but not required; if acclimatizing, the flooring should be stored in the room it will be installed for a minimal 24 hours for easier installation.
4. Maintain a constant temperature between 60° and 85°F (15.56° and 29.44°C) and relative humidity (air) between 25% - 60%.
5. HDPC® Wood Planks should only be installed after other trades have finished and the jobsite has been cleaned and cleared of debris that could potentially damage a finished floor.
6. Inspect flooring for damage, defects, or shading issues before installation; claims for visual defects will not be accepted after cutting and/or installed.
7. Due to color variations in a natural product, mix and install planks from several different cartons during installation to ensure a random appearance.
8. Leave 3/8 inch room for expansion around the **entire** perimeter of the flooring or any vertical obstacle like pipes or posts.
9. Flooring should be protected from direct sunlight to prevent fading and discoloration attributed from UV exposure.
10. Protect your flooring from scratches by following our maintenance procedures below.
11. This flooring is designed for interior use and should not be installed in exterior conditions.
12. When waterproofing an area (see bottom section under “waterproofing”), make sure to use 100% silicone, stay away from acrylic caulk.
13. Product must be installed in accordance with installation guidelines.

### Pre-Installation

#### Subfloors:

Planks can be installed over a variety of subfloor surfaces including concrete on all grade levels, wood and many other existing hard surface floors. The subfloors must be clean, smooth, flat, solid (no movement), and dry. **Do not install planks over floors that are sloped for drainage.** Any uneven areas greater than 3/16 inch (4.76mm) in a 10 foot (3.05m) radius should be leveled with a Portland cement based patching compound. Our HDPC® wood Planks are resistant to water damage, but they do not prevent the transmission of moisture. Care should be taken to keep moisture from collecting on either side of the flooring to prevent the growth of unhealthy mold and mildew.

### **Moisture Testing:**

**Sub-floor moisture testing is necessary**, it will alert you of current moisture issues that may affect the installation and promote the growth of unhealthy mold and mildew which could potentially affect you and your family's health, as well as the flooring. **You may want to consult with a professional for proper testing and guidance.** Moisture levels above 12% in wood subfloors or 4.5 on moisture encounter meters for concrete subfloors can promote the growth of mold and should be investigated to determine the cause and solution of the problem.

**Checking for moisture:** Use a Ligno DuoTec (or equivalent) moisture meter for wood, or a Tramex Concrete Moisture Encounter meter (or equivalent) for concrete. You can also use a calcium chloride test for concrete; test results above 5 lbs. per 1000 sq. ft., (or 85% RH using in-situ probes) in a 24 hour period can indicate a more extreme moisture issue and should be investigated.

### **Concrete Subfloors:**

Planks can be installed over concrete on all grade levels if a proper moisture barrier is used. A minimum 6 mil polyethylene moisture barrier should be used with concrete subfloors. Moisture vapor emissions should not exceed 5 lbs./24 hour per 1,000 sq. when tested with the Anhydrous Calcium Chloride Test in accordance with ASTM F 1869 or 85% RH in accordance with ASTM F 2170 "Standard Test Method for Determining Relative Humidity in Concrete Slabs using in situ Probes. Any uneven areas greater than 3/16 inch (4.76mm) in a 10 foot (3.05m) radius should be leveled with a Portland cement based patching compound. Holes and cracks in the cement should be patched, and expansion joints should be filled with a latex patching compound. Newly poured concrete floors must cure for a minimum of 90 days. Please note it is the person installing the floor and/or the homeowner's responsibility to ensure any moisture or alkalinity issues are resolved **prior** to installing the floor.

**NOTE: Excessive moisture may cause the growth of unhealthy mold or mildew and/or cause staining of the flooring which is not covered by our Warranty.**

### **Wood Subfloors:**

Planks should be installed over a smooth, flat, level wood subfloor, underlayment grade plywood, lauan plywood and other underlayments recommended by the manufacturer for use with a floating plank floor. Subfloor should be flat within 3/16 inch (4.76mm) in a 10 foot (3.05m) radius. Wood subfloors must be suspended at least 18" above the ground. Adequate cross-ventilation must be provided, and the ground surface of the crawl space should be covered with a suitable vapor barrier. If installing over a crawl space, a minimum 6 mil polyethylene moisture barrier should be used.

**NOTE: Avoid subfloors with excessive vertical movement or deflection because subfloor movement may cause the locking mechanism to wear down, or even break. Indications of excessive deflection are subfloor fastener release, squeaking, compromised or sectional contours such as bowing or dipping in floors and uneven flooring material. Nail or screw subfloor panels to secure boards with excessive vertical movement or deflection prior to installation of the flooring material. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of substructures.**

### **Recommended Areas:**

This flooring is suitable for installation in most areas of your home, including basements. **This floor may not be suitable for vacations homes or homes where the temperature is not controlled year-round.** Care should be taken not to expose the flooring to standing water or liquids for extended periods of time, as it may damage the floor.

### **Existing Flooring:**

Our HDPC® Wood Planks can be installed over a variety of finished floors including single layer resilient sheet flooring/ tile, ceramic, marble and terrazzo. The surface must be in good condition and show no signs of excessive moisture conditions. Grout joints and heavy embossing in tile or vinyl should be leveled so they are flush with the flooring surface. Additionally, the tile may require several skim coats to achieve that flat surface. Carpet, heavily cushioned vinyl floors or vinyl floors consisting of multiple layers are **NOT** a suitable subfloor for installation.

#### **Radiant Heat Subfloors:**

HDPC® Wood Planks can be installed over in-floor radiant heating systems provided the subfloor surface does not exceed 85°F (29.44°C) at any point. The initial floor temperature should not exceed 70°F (21.11°C) for 24 hours prior, during, and 48 hours after installation. Thereafter the temperature should be gradually increased to the desired setting up to 85°F (29.44°C). Because heat does affect both plastic and wood, you may need additional room for expansion (larger expansion gap) and contraction (wider base to allow for contraction) Electrical heating systems that are installed on top of the subfloor surface and not encased with self-leveling underlayment are not recommended.

#### **Important Notes:**

**Before removing any existing resilient flooring or tiles, please consult with a flooring professional to determine if asbestos abatement is necessary to avoid exposure. See current edition of the Resilient Floor Covering Institute (RFCI) publication “Recommended Work Practices for Removal of Resilient Floor Coverings” for detailed information and instructions on removing all resilient covered structures.**

#### **Moisture Barrier and Underlayment Padding:**

While it is not necessarily difficult to install a floating floor, you may want to consider having it done by a professional installer. Since there is an attached padding, no additional padding should be used, never install this product over a secondary pad. Over a concrete slab a moisture barrier is recommended. Moisture barrier should consist of at least a 6 mil polyethylene film with the sheets overlapping 6” and taped to prevent moisture migrating to the flooring.

#### **Pre-installation inspection:**

It is the duty of the person installing the floor to inspect all flooring before installation. If during inspection the installer or buyer feels the floors is the wrong color, improperly manufactured, is off-grade or is the wrong gloss level, he/she should **NOT** install the flooring. Please immediately contact the retailer from which the flooring was purchased. No claims will be accepted for flooring which is visibly wrong if such flooring is installed. **Installed flooring is deemed to be visibly acceptable.**

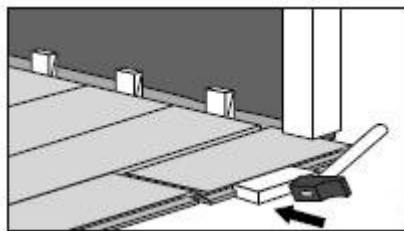
### **General Tips**

- **Make sure the HVAC is operational and running.**
- **Remove wall base and undercut door jambs.**
- **Do not secure individual planks to the subfloor as it is designed to be a floating floor.**
- **Do not install cabinets on top of your floating floor.**
- **In rooms exceeding 4,000 ft<sup>2</sup> or lengths exceeding 60 ft, an expansion space and T mold is recommended. It is also recommended to separate all rooms using T molding.**

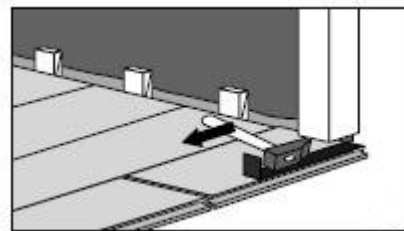
### **Installation**

1. First, determine how you want the flooring to run. Typically for plank products the flooring runs the length of the room. There may be exceptions since it is all a matter of preference.

2. To avoid narrow plank widths or short plank lengths near the walls/doors, it is important to do some pre-planning. Using the width of the room, calculate how many full boards will fit into the area and how much space remains that will need to be covered by partial planks.
3. Start with a whole plank in the left hand corner of the room with the tongue side and end toward the wall. Lay the first row of planks along a chalk line and trim to fit to the wall allowing a 3/8 inch (6.35mm) expansion space. If starting the first row with a whole width plank it will be necessary to trim the tongues next to the wall, then place the cut ends next to the wall using spacers. To trim the planks, a table saw works best for both end and length cuts.
4. Align and attach the end joints of the planks in the first row using the fold down method, tap the surface using a block to lock the joints securely. For length joints insert the tongue into the groove while holding the plank at a 20° to 30° angle to the floor. Apply pressure inward and down until the planks lock together, you may use additional tapping if necessary. Use spacers between the long edge and end of the planks next to the wall to maintain the expansion space.
5. Start the second row using 1/3rd of a plank. Place the cut end against the wall. Insert the tongue on the long side of the plank into the groove of the plank in the first row. Hold the plank in a 20° to 30° angle while applying pressure inward and down until they lock together. To complete the second and all successive rows, it will be necessary to align the short end onto the previous plank first before locking the long side of the plank. Angle the plank and push the tongue into the groove and adjust it until the tongue locks into place. It may be necessary to tap the planks inward to lock the joint together. Complete the second row allowing 3/8 inch expansion space at the start and end of each row.
6. Start the third row using a 2/3rd length of a plank with the cut end against the wall. Complete each row thereafter using a random layout with end joints off-set by at least 8". Plan the layout to avoid using small planks (less than 6") at the walls and stagger the end joints 6 to 8 inches. The cut piece at the end of the row can often be used to start the next row provided it achieves a random layout. Always place the cut end against the wall and allow for the expansion space. There should never be a cut piece in the field of the installed area, all cuts are along the perimeter.
7. HDPC® Wood Planks are unique in that they can also be installed using a tapping block and rubber mallet or hammer and pull bar in difficult areas such as the last row and when fitting under door trim. Always use a pull bar on the cut edge of the plank, factory edges can be damaged if the pull bar is used directly against them.
8. When fitting around door trim it will be necessary to slide the plank under the trim. This can be accomplished easily by starting the row on the side of the room with the door trim and then sliding the plank into place once it is attached. The row can be completed by inserting the tongue onto the groove or the groove under the tongue depending on the direction. A tapping block and pull bar (**Diagrams 2a & 2b**) can also be used to lock the joints together while the planks are in a flat position. Use a series of light taps until the joint is gradually locked together.



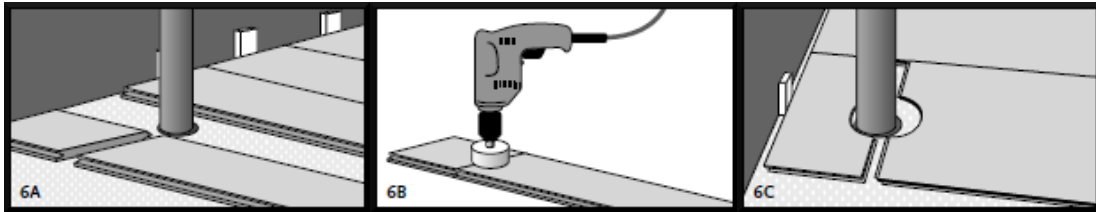
**Diagram 2a**



**Diagram 2b**

**Bathrooms:** When HDPC® Wood Planks are installed in a bathroom, remember that wood and water do not get along and to avoid standing water if possible. The flooring should be installed around the toilet leaving a 1/8 inch (3.175mm) expansion space. Use 100% silicone caulking to fill the expansion space at the toilet, tub, shower, and all wet areas to help prevent surface water seepage from going under the floor.

**Pipes:** In rows where there is a pipe or other vertical object through the subfloor, make sure the object lines up exactly where two boards will meet on the short ends. Take care to measure carefully before cutting, so the two boards end at the middle of the object. Use a drill or hole bit that is the diameter of the pipe or object, plus 1/2 inch (12.7mm) for expansion/contraction. Lay the two short sides of the boards together, then drill the hole centered on the joint between the boards as shown. Now you can separate the two boards and install as normal. See Diagrams 6A – 6C.



## Transitions, moldings, and wall base

**Waterproofing:** When trying to create a totally waterproof area, you will need to run a small bead of 100% silicone around the perimeter, this can be done as you are installing your base (under the base), or after the base has been installed (in front of the base), and under all transitions. This will create a permanent seal around the perimeter to keep water from absorbing through the edges under the base and trim.

T transitions are recommended in all doorways to allow each room to move independently. All transition pieces should be attached to the subfloor using the recommended attachment method for the transition purchased. Never attach the transitions directly to the flooring using nails, screws, or adhesives. All transition moldings must also be sealed to the flooring using a small bead of 100% silicone between the transition moldings and the flooring. Be sure to wipe off any excess silicone using mineral spirits paint thinner, or denatured alcohol, and a clean cloth. When cured, 100% silicone is rubberized and will allow the floor to move while preventing topical moisture from penetrating under the transition molding.

**Note:** Waterproof Protection against topical moisture/spills, excludes damage from flooding. Topical Moisture/Spills should be wiped up as soon as possible.

### Finishing The Job:

Inspect your work, as it will cost you more if you have to come back to do a repair later. Replace original baseboards, or install matching hardwood baseboard. Install matching transitions as needed or recommended by your dealer or installer. It is not recommended or necessary to use a topical sealer on this floor after installation. Protect your floor from scratches by using felt pads on chair legs or furniture feet. Plastic rollers/castors can damage your flooring; if necessary try to replace with softer rubber wheels/castors. When moving heavy items like refrigerators, use at least two sheets of 1/4" Masonite or plywood while moving (sliding the appliance from one sheet to the next) to protect the flooring against scratching and denting.

### Congratulations!

**You have just installed a beautiful, and elegant HDPC® Floor!**