

## **Installation of Duro Design Site-Finished Floating Cork Clic Floor**

You must read and understand these instructions completely before installing Duro Design Floating Clic Cork Flooring. If these instructions leave you with unanswered questions or if you need additional information, please contact Duro Design toll free at 1-888-528-8518 before starting installation.

It is the responsibility of the installer to determine suitability of Duro Design floating flooring for each application. Prior to installation, installer should inspect all material. Any defect must be reported directly to Duro Design. Should an individual plank be doubtful in appearance or dimension, the installer should not use the plank. Duro Design will send a replacement in a timely manner.

Duro Design guarantees the quality of our floating cork flooring and its urethane finish. Our warranty does not extend to the quality of work performed by a selected installer. Duro Design disclaims all liability for faulty installation of its product. This warranty does not cover material with visible defects once they are installed. Duro Design declines responsibility for failure resulting from or connected with subfloor or job-site damage or deficiencies.

### **NATURAL VARIATION**

Cork is a natural product. Just like wood, cork will vary in shade and texture. Mix cork planks from different boxes to maintain natural color and pattern variation and achieve an optimal visual blend.

### **ACCLIMATION**

Store cork flooring out of the box in the room(s) in which it is to be installed for a minimum of **72 hours**. During storage and installation, maintain temperature and relative humidity to levels consistent with the conditions that will prevail when the building is occupied. Heating or air conditioning should be used for an appropriate length of time prior to and during installation. Without proper acclimation, the floor could noticeably expand or contract after installation. Ideal conditions are **70°F (21°C)** temperature with **relative humidity of 30-50%**.

### **EXPANSION**

Cork floating floors are subject to minor expansion during periods of high humidity and minor contraction during periods of low humidity (usually the heating season). Expansion and contraction can be kept to unnoticeable levels by stabilizing the building through temperature and humidity control and allowing for proper acclimatization of the product prior to installation.

The entire floor perimeter and all doorways require an expansion space of  $\frac{1}{2}$ ". Additionally, large areas of Duro Design Floating Floor exceeding 30 feet in any direction must be divided by a  $\frac{1}{2}$ " expansion joint. A transition T-moulding will be required to cover these expansion joints.

**NB: Installation of a floating cork floor is not recommended in bathrooms or other areas of high-moisture concentration.**

## CONCRETE SUBSTRATES

Duro Design Floating Floor can be installed over concrete that is above grade, on grade or below grade. Concrete substrate must be properly cured and tested for moisture content. Concrete must be sound, smooth, level and flat with a maximum variation of 1/8" across 10'. Fill any low spots with a Portland cement-based filler and scrape or grind any high spots. Slab must be cured a minimum of 28 days. Flooring must not be installed if vapor pressure exceeds 3 lbs. per 1000 square feet in 24 hours as tested according to ASTM F 1869 (calcium chloride test method). Preferably, the slab should be tested according to ASTM F 2170 (Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In-Situ Probes). Flooring must not be installed if the relative humidity inside the slab exceeds 75%.

Before installing Duro Design Floating Floor, cover the concrete subfloor with 6 mil polyethylene. Run the sheets 3" up the walls, overlap seams by 8" and tape together. Install planks over this moisture barrier. **In below-grade installations you must use a 3mm thermo-foil underlayment** instead of 6 mil polyethylene.

## UNDERLAYMENT-GRADE PLYWOOD AND MAN-MADE BOARD SUBSTRATES

Subfloor must be clean, level, dry, and free of contamination. Tolerance of level must be within 1/8" across 10'. Fill any low spots with a Portland cement-based filler and sand or scrape any high spots. Subfloor must not exceed 14% moisture content (as measured by electrical resistance testing). Check basements and crawl spaces to ensure that they are dry and well-ventilated. Duro Design recommends placing 6 mil polyethylene sheeting as a vapor barrier in crawl spaces.

## IN-FLOOR RADIANT HEATING SYSTEM

As radiant heating provides heat so proximally to the planks, flooring installed over radiant heating may gain moisture or dry out faster than in a home with conventional heating. For such an installation, once the concrete slab has cured, turn the radiant floor heat on, regardless of season, and leave it on for at least **5-6 days before installation**. Maximum surface temperature should never exceed 85°F (30°C).

### REQUIRED TOOLS

- Table saw
- Miter saw
- Hammer
- Floor pull bar
- Measuring tape
- Chalk line
- 1/2" spacers
- 6 mil polyethylene vapor barrier or 3mm thermofoil barrier (below-grade installations)
- Sheathing tape (red Tuck Tape)
- Flexible caulk
- Transition "T" mouldings (if necessary)
- Tapping block for floating floors
- MP765 water-based low-VOC polyurethane & catalyst (supplied by Duro Design)
- Synthetic pad applicator for varnish (supplied by Duro Design)
- Painter's extension pole and paint tray for varnish

## INSTALLING FLOATING FLOOR PLANKS

### Preparation & floor layout

Remove and set aside existing baseboards. Using a piece of flooring as a guide, undercut door casings so the floating floor can easily fit underneath.

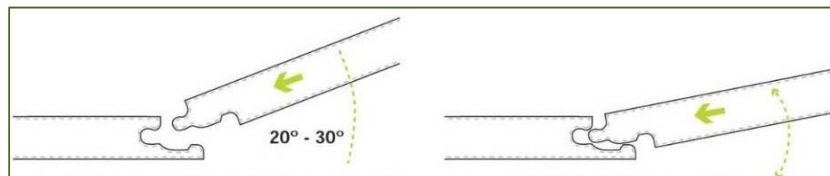
Decide in which direction you will lay the planks in the space (i.e., running ↔ or ↕). Establish a straight line parallel to the longest wall that runs in the same direction as you want the flooring planks with the aid of a chalk line. This chalk line will serve as a guide to keep your first row straight and parallel to the wall.

Using a tape measure, measure the width of one floor plank away from that wall and mark the floor at both ends of the wall. Snap a chalk line between these two points. Verify at several points that the distance between the line and the wall never exceeds the width of one plank. If the space is bigger than the width of one plank at any point along the wall (because of irregularities or imperfections in the wall), snap a new chalk line that is a bit closer to the wall.

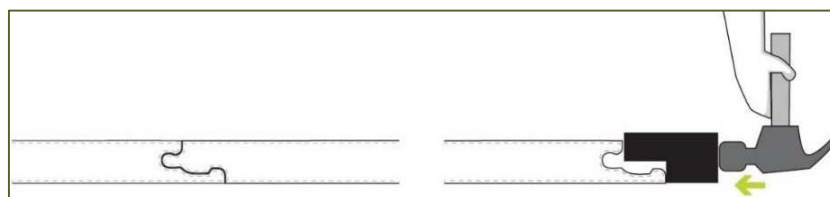
The width of the planks of the *last* row should have a minimum of 10 cm. To avoid a last row of very skinny planks, measure the entire width of the room before starting the installation. If necessary, adapt the width of the first row by snapping a new chalk line. If small filler pieces or narrow planks are unavoidable during the installation, apply a bead of wood glue along the edge of the small piece or narrow plank, use a pull bar to get the plank tightly into position, and affix a piece of painter's tape to hold it in place until the glue sets.

### Joining the planks

To join the long edges of flooring planks, insert the tongue of the new plank into the groove of the plank already on the floor. Position the plank to be installed raised at an angle of 20–30 °. Move the panel to be fitted slightly up and down while applying forward pressure until the tongue engages the groove. Lower the plank to lock the joint into place.



The short edges of planks are assembled by tapping with a **hammer and the Duro Design tapping block**. Tap lightly along the edge of the plank until the two planks click together. **Knocking the boards together with one big blow or continuing to tap once they have already clicked together may damage the board edges.** You may also join the long edges of planks by tapping with a hammer and block when it is not possible to tilt a plank upwards, such as under a door casing.



## Laying the first row

Start installing the floor in the right-hand corner of the wall along which you snapped a chalk line. With the **tongues of the boards facing the wall**, lay planks along your chalk line from right to left. Before laying the first plank, measure the length of the room to ensure that the last board of the first row will be at least 10" (25 cm) long. If not, start the first row with a board cut in half rather than a full board. Using a spacer, leave a ½" expansion joint between the end of the first plank and the wall. To ensure a perfect expansion joint, it is preferable to saw off the tongues of the first row of boards.

Working from right to left, continue placing planks making sure that each one is in alignment with your chalk line and with each other. This is essential for straight, parallel installation of subsequent rows. The entire length of the wall, use spacers as necessary to prevent the planks from shifting and to maintain a minimum ½" (12mm) gap. When trimming the last board of first row, ensure that the required ½" (12mm) expansion gap is maintained. Insert a spacer.

## Laying the second row

Start the second row with the off-cut from the last plank of the first row if the plank length is at least 10" (30 cm). If not, start the second row with either a full or half plank, in order to stagger the end joints by at least 10" (30 cm). Tilt up the first plank of the second row and push the tongue of its long edge into the groove of the first plank of the first row until both panels click together. Place a spacer between this plank and the wall.

To add the next plank in row 2, first slide its long tongue edge into the groove of the adjacent plank in the first row leaving a space of approximately 1 cm from the end of the first plank in row 2. Then, using the tapping block, tap the two end joints together until they click. Continue laying boards until you have two complete rows. Adjust the first two rows as a unit to ensure an expansion joint of at least ½" (12 mm) along the wall. Placing full boxes of planks on these first rows can help prevent them from shifting.

## Laying subsequent rows

To stagger plank ends randomly while also keeping end joints of adjacent rows 30 cm apart, start each subsequent row with planks of varying lengths. Continue laying boards, cutting the first/last planks in the row so that you maintain the required expansion space around the perimeter of the room. Any projections through the floor (e.g., pipes, columns) also require an expansion space of ½" (12mm) around them.

## Laying the last row

Usually the last row will require that all planks be cut lengthwise. Measure each plank at several places along the length to ensure a proper fit. Remember to allow for the ½" (12mm) expansion space along the wall side. Use floor pull bar and hammer to gently bring the long side of planks together. The short edge can be joined using the tapping block as before.

## Finishing up

After installing the final planks, sweep and vacuum the floor. Remove all spacer blocks. Fix the baseboard over the extended polyethylene sheeting. Never attach baseboard to the floor itself, but instead allow space for the floor to expand and contract beneath the baseboard. In order to fill in the expansion gap around pipes and any other areas not covered by trim, use a flexible caulking.

## APPLYING THE URETHANE VARNISH

Thoroughly sweep and then vacuum the floating cork floor to remove any work-site debris or dust. Keeping the floor as clean as possible throughout the varnishing process ensures a clear, high quality finish.

First, you must **catalyze** the MP765 urethane varnish. (Never use varnish uncatalyzed). Stir the varnish well to mix any solids that may have settled during shipping back into the liquid. Stir gently while gradually pouring the entire bottle of pre-measured catalyst into the MP765 varnish. Do not dump the catalyst in without stirring, as it may harden prematurely at the bottom of the can. Continue stirring for 3 minutes to ensure catalyst is mixed in.

The catalyzed varnish is good for four days but we recommend filtering it with the supplied filters if you are varnishing over the course of several days. Filtering the varnish when pouring into your applicator tray is also recommended.

- Pour the catalyzed varnish into a clean paint tray and soak the supplied applicator with varnish.
- Never use a roller to apply urethane as bubbles will result.
- Each coat should be applied thinly. Too thick of an application can result in streaks or puddles in the finish.
- Allow a minimum of **2 to 3 hours** drying between coats. Drying times will vary with ambient temperature and humidity.
- **Four coats** of varnish are required. Ideally, the first two coats of varnish are applied in one day, and the last two coats the following day.
- Fans may be used to accelerate drying time between coats, but be careful not to blow dust or debris into the wet varnish.
- Apply the first coat of varnish across the long dimension of the tiles, in a smooth, gentle motion (similar to cleaning).
- Apply the second coat perpendicular to the first coat, along the long dimension of the tiles.
- After the second coat is completely dry, fill any visible gaps between tiles with color-matched latex caulking or wood putty the colour of the raw (unvarnished) cork. We recommend a light brown shade like Lepage's light oak. Once the putty is dry, tint the putty using the supplied touch up stain. After the last 2 coats of urethane are applied, these patches blend in with the rest of the floor.
- Between the second and third coats only, we recommend a light manual (never machine) sanding using a 220-grit sanding paper followed by a vacuuming.
- After the fourth coat of varnish, allow **overnight drying** before walking on the cork floor with shoes.
- To avoid streaks, the final coat should be allowed to dry slowly and without artificial ventilation (fans).
- Wait **48 hours** before placing cabinets, furniture, or appliances on the varnished floor.

## MAINTENANCE

Your Duro Design cork floor is very well protected by our urethane finish. To keep it looking beautiful over a long lifetime, the secret is to keep it clean by regular sweeping and vacuuming.

- Prevent grit, sand, salt and dirt from being ground into the floor as this will dull or scratch the finish.
- When occasionally damp-mopping the floor, use a **hardwood floor cleaner** (e.g., Bona, Finitec, Basic Coatings) at a 1:10 dilution. Use a well wrung mop.
- **Do not** clean with **oil soap** or **apply wax** to the floor as this will damage the urethane finish.
- Spills should be wiped up immediately.
- Walk-off mats at entrance doors and in front of kitchen sinks are encouraged.
- Protect your floor from everyday use by installing felt or plastic protectors under “feet” of furniture.
- Rolling chairs should have wide casters, preferably in neoprene.
- Observe re-finishing maintenance schedule and re-varnish the cork floor when high-traffic areas begin to show signs of wear.

## WARRANTY

We offer a 5-year renewable finish warranty for our cork flooring for normal wear and tear if you follow the following re-finishing maintenance schedule.

To ensure the lasting beauty of your cork floor an additional coating of urethane should be applied:

- Once a year for high-traffic commercial;
- Once every 2 to 3 years for low to medium traffic; or,
- Once every 5 to 7 years for residential cork flooring installations.

Re-varnishing is a simple, inexpensive, and fast operation. A light manual scuff sanding of the floor with 220-grit paper is followed by a thorough vacuuming. Apply two coats of our MP765 water-based varnish, allowing 4 hours of drying time between coats. Let the 2nd coat dry overnight and floor is ready for regular traffic.

**Never apply wax to your floating cork plank floor. Its urethane finish will be damaged by wax!**

A well-maintained Duro Design cork floor will last for decades.

These instructions were compiled in Jan 2021.

The most recent revision of this document is always available at <http://www.DuroDesign.com/>