COLUMBIA LONGSTRIP HARDWOOD CLIC™ FLOORING

Columbia Longstrip Hardwood Clic Flooring can be installed without glue. The Columbia Clic connection enables you to work quickly and securely. Different from our Clic Collection of Laminate flooring, the connection of Columbia Longstrip Hardwood Clic Flooring is made from solid wood flooring providing a tighter sealed edge

ATTENTION – INSTALLER/OWNER RESPONSIBILITY

Inspect **ALL** materials carefully **BEFORE** installation. Wood is a natural product containing natural characteristics such as natural variations in color, tone and graining. Some variation in color is to be expected in a natural wood floor. Even though our product goes through many inspections before it leaves the plant, it is the customer and installer's responsibility for final inspection prior to installation. Warranties DO NOT cover materials with visible defects once they are installed.

TOOLS

Basic tools and accessories: broom or vacuum, chalk line, Columbia tapping block, Hammer, Columbia Floor Cleaner, hand or electric jam saw, miter saw, moisture meter, safety glasses, straight edge, table saw, tape measure, square, utility knife, pry bar. Columbia wedges, Columbia Fitting Wedges, dust mask.

WOOD DUST

Sawing, sanding or machining wood products can produce wood dust, which can cause a flammable or explosive hazard. Wood dust may cause lung, upper respiratory tract, and eye and skin irritation. Some wood species may cause dermatitis and/or allergic respiratory effects. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans. The National Toxicology Program (NTP) has also classified wood dust as a known human carcinogen.

- Avoid dust contact with ignition source.
- Sweep or vacuum dust for recovery or disposal.
- Avoid prolonged or repeated breathing wood dust in air. Approved respirators may be needed depending upon dust conditions.
- Avoid dust contact with eyes and skin. Wear gloves and safety glasses when handling and machining the product.
- FIRST AID: If inhaled, remove to fresh air. If irritation persists, contact a physician.

JOBSITE CONDITIONS

It is the responsibility of the installers/owner to determine if the job site sub-floor and job site conditions are environmentally and structurally acceptable for wood floor installation The manufacturer declines any responsibility for wood failure resulting from or connected with sub-floor, subsurface, job site damage or deficiencies after hardwood flooring has been installed. Maintaining the value of your Columbia Hardwood Floor and a healthy environment for yourself requires ambient room conditions of 35% to55% relative humidity an a room temperature of aprox, 70 - 75 degrees. Use a humidifier to prevent extreme drying out. The hardwood flooring packages should be stored at these room conditions for 48 hours prior to installation. Stack cartons unopened in the middle of the room and away from damp areas. Cover all furniture with felt floor protectors

HUMIDITY

"Normal living conditions" are defined as having the relative humidity (air) being monitored and maintained at 35% to 55%, and the moisture content of the flooring at 6% to 9%, with a tolerance of +/- 1%. The proper use of a humidifier/de-humidifier is recommended. Wood that

is too dry may "crack" or "check". Wood that is too damp will increase in width, causing "cupping' or crowing". A moisture content that is too high may also lead to mildew in extreme conditions. These situations are job site related and not considered a manufacturing defect.

SUB-FLOOR PREPARATION AND RECOMMENDATIONS FOR ALL INSTALLATIONS

Concrete Sub-Floors

New concrete slabs require a minimum of 60 days drying time before covering them with a wood floor. Concrete sub-floors must be dry, smooth (level with 3/16 " in a 10 foot. Radius – 1/8 " in 6 ') and free of structural defects. This Longstrip hardwood flooring may be installed on-grade, above grade, as well as below grade where moisture conditions do not exist.

Wood sub-floors

Wood sub-floors need to be well nailed or secured with screws. Nails should be ring shanks and screws need to be counter sunk. The wood sub-floor needs to be structurally sound and dry. They should not exceed 12% moisture prior to installation. If the sub-floor is single layer, less than ¾"thick, add a single cross layer for strength and stability (minimum 3/8"thick for a total 1" thickness). This is to reduce the possibility of squeaking Underlayment grade OSB (not the wax side) is also suitable subfloors. Particle Board can be used as a sub-floor. When installing over existing wood flooring, install at right angles to the existing floor.

Sub-floor moisture check

Below-grade applications are susceptible to moisture and should be tested for moisture prior to installation in several locations within the installation area. Acceptable conditions for above- onand below-grade applications are:

- Less than 3lbs./1000 sq. ft./24 hrs. on a calcium chloride test.
- Less than a reading of 5.0 on a Tramex Concrete Moisture Encounter (moisture meter).
- Wood Substrates must have a moisture reading of less than 14% when using a Tramex or Delmhorst or equivalent moisture meter.

To correct any sub-floor problems concerning moisture, either wait until the sub-floor dries to meet specifications or use an appropriate moisture barrier. For more information concerning moisture conditions, contact Columbia's technical service department.

Sub-floors other than wood or concrete

Note: Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayment and must be removed. Terrazzo, tile and any other hard surfaces that are dry, structurally sound and level, as described above, are suitable as

a sub-floor for this Longstrip hardwood flooring installation. As above, the surface must be sound, tight and clean.

WARNING! Do not sand existing resilient tile, sheet flooring, backing, or felt linings. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.

Radiant Heated Sub-floors

Before installing over a radiant-heated floor turn off heat and wait until the floor has reached room temperature (70-75F). After installing the floor return the heat to the previous setting. End Joints must be glued by evenly applying to the front edge of the top of the tongue. Any emerging glue should be immediately wiped off the surface with a clean damp cloth. The use of an exterior thermostat will raise the home temperature at a more controlled rate as the temperatures outside falls putting less stress on the wood flooring.

Caution: The slab surface must never exceed 85° F. in temperature.

PREPARATION

Remove all moldings and wall-base and undercut all door casings with a hand or power jam saw using a scrap piece of flooring as a guide.

Installing Columbia Moisture resistant foam underlayment

Roll out Columbia's Moisture Resistant 3 in 1 foam underlayment and overlap plastic overlap and securely tape using the peel off tape located on the overlap. Overlap foam up on walls to pull moisture away from the hardwood flooring. This foam can be trimmed later to fit under the quarter round molding or wall base.

Foam should be installed with foam side up and plastic side down.

Note: When installing a pre-finished wood floor be sure to blend the wood from several cartons to ensure a good grain and shading mixture through out the installation.

The Clic Locking System

The planks can be turned into each other. Tongue in groove as well as groove in tongue are possible. However, it is easier to join the tongue in the groove. The plank to be laid is lifted slightly and turned against the already laid plank. (See diagram A) To make the long side locking system join easier use the Columbia fitting wedges. The plank to be laid is placed on the fitting wedge and pushed against the plank. Remove the fitting wedge and press in the row of planks with a light pressure on the long side. The planks lock into each other. (See diagram B) The Columbia tapping block can be used to aid in the connection of the locking system on the long side.

IMPORTANT: In commercial application, radiant heated floors and in rooms over 1000 sf it is necessary to glue the end joints. (See diagram C) End Joints must be glued by evenly applying to the front edge of the top of the tongue. Any emerging glue should be immediately wiped off the surface with a clean damp cloth.

IMPORTANT: If the floor is longer than 26 feet in length then a transition is required. Transitions should be used in all doorways. Columbia Flooring's t-mold performance molding is recommended in all doorways to allow important expansion in a doorway area.

Installation

The first rows should begin along the straightest wall usually the front wall on top of the installed Columbia moisture barrier 3 in 1 foam underlayment. Note that an expansion space of ¹/₂" along the wall is needed. This distance must be provided along all vertical objects the floor will come into contact with. Columbia provides a complete selection of moldings to assist in providing a professional finish look while maintaining this important expansion area. (See Columbia Performance Moldings) Columbia Flooring wedges will provide you with the correct expansion space.

Cutting Planks

When sawing planks if you use a handsaw keep the wear layer side of the plank facing upward. When using a circular electric saw keep the wear layer side facing down.

Saw off the tongue of the first plank both on the short side and the long side. For all other planks, which are laid on the first row only, saw off the tongue on the long sided.

Laying the first row

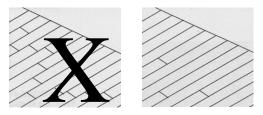
The plank 1 can begin in the left hand corner of the room. A spacing around the wall perimeter of ¹/₂" can be maintained by using the Columbia Flooring wedges. The planks are laid with the tongue side facing the wall, which enables you to best work with the Columbia Clic system.

Now plank 2 (see diagram G) is connected to the end locking system of Plank 1. (See Photo 2) Lay this rest, plank after plank, in this manner until you have completed the first row. Cut the last plank accordingly please ensure that this first row is straight. Use the Columbia wedges to maintain proper $\frac{1}{2}$ expansion space from the wall.

Row Two: A starter piece cut to a length of approximately 48 inches is suggested to begin the second row. The leftover piece from the first should be considered for this starter piece to minimize waste. Place this plank on the Columbia fitting wedge and push against the plank in row 1. (See Photo 3). The next complete plank is connected end joint first into the previous plank and place on the Columbia fitting wedge. (See Photo 4) The plank is again push tightly against the previously laid row (See Photo 5) Continue laying in this way across the entire row, Remove the fitting wedge (See Photo 6) and press in the row of planks with a light pressure on the long side. The planks lock into each other. See Photo 7) The Columbia tapping block can be used to aid in the connection of the locking system on the long side. The planks are now laid row after row in this sequence. (See Photo 8)

"Racking the Floor"

Start by using random length planks in random lengths, differing by at least 16". As you continue working across the floor be sure to maintain the 16" minimum between end joints on all adjacent rows. Never waste material; use the left over pieces from the fill cuts to start the next row or to complete a row.



Remember to cut the last planks against the wall a minimum of $\frac{1}{2}$ " for expansion space. (See Photo 9)

The Last Row

To install the last row place a plank with the wear layer side facing upward on the last installed row and the groove side facing the wall. Using a spare piece of plank (with its original width) transfer the unevenness of the wall onto the plank. Cut the plank accordingly to install.

Since the floor is installed without glue you can walk on it immediately.

Final Touches

Install the proper trim molding at the doorways to achieve the transition and along the walls to cover the edges of any gaps along the wall due to irregularity.

Complete the job by using filler that blends with the installed flooring to fill any gapping along the joints and clean the finished floor with quality wood floor cleaner.

Columbia Hardwood Floors are very easily maintained. No wax, no mess. Simply use Columbia Flooring Cleaner and a specialty terry cloth flooring mop available from flooring retailers.

STEP ONE: Vacuum or sweep your floor to remove any particles that could scratch your floor.

Warning: Vacuums with a beater bar or power rotary brush head can damage a wood floor and never should be used.

STEP TWO: Apply the cleaner directly to the terry cloth flooring mop, \underline{not} to the floor!

STEP THREE: Use a back and forth motion with the mop. When the terry cloth cover becomes soiled, simply replace it with a clean one. Cleaning the floor with a soiled cover could cause streaking. The covers are re-usable so simple throw the cover in the wash and dry its as you would any towel.

Tips & Warnings:

- Vacuum or sweep regularly.
- Remove spills promptly using the floor cleaner and a clean white cloth.
- Use felt protectors under heavy pieces of furniture and chairs.
- Use protective mats at all exterior entrances.
- Spiked heels or shoes in need of repair can severely damage your floor.
- Never wet or damp mop your wood floors. Water can cause damage to wood flooring.
- Never use oil soaps, wax, liquid or other household products to clean your floor.
- The sun's UV rays can change the color of your floor.
- Keep animal nails trimmed.