

## Installation Guide

### Hardwood Engineering

#### INTRODUCTION

Please read all instructions carefully before you start laying the floor.  
Improper installation may void the warranty.

#### PRODUCT SPECIFICATIONS

Laminated flooring can be installed on the floor, the ground floor or basement.

It is also possible to install most types of wood on top of a subfloor with a radiant heating system with the exception of Brazilian Cherry [Jatoba / Koubari] and Cumaru

Their composition allows them to stick to a wood subfloor or concrete, or the stapled to a plywood with a stapler for hardwood floors. Adjust for engineering. Use appropriate products to seal the slab (Bostik or other product).

#### RESPONSIBILITY OF THE INSTALLER AND OWNER

Before installation, the installer and the owner must ensure that the environment work and subfloor meet or exceed the minimum specified in this installation guide.

The industry provides a margin of error of 5% for natural imperfections and manufacturing defects. Before installation, the installer and the owner must make final inspection of the grade, color, quality manufacturing and finishing wooden slats to ensure that the floor is to be installed in accordance with the product purchased.

Every blade installed floor will be considered accepted by the installer and owner, the latter is present or not at the time of installation. At the time of control the amount necessary to hardwood flooring, it should add a surplus to offset losses from cuts 2 ¼", 3 ¼", provide 5% more to 4 ¼", 6% for 8" and 5"by 6"to 8"provide 10% more.

#### TOOLS

##### LIFETIME RECOMMENDED TOOLS AND ACCESSORIES

- Vacuum or broom
- Scraper
- Bar leveling
- Level
- Composed levelling [if needed]
- Sandpaper 20 [if needed]
- wood moisture meter
- [concrete and if necessary]
- Mitre
- Handsaw
- Hammer
- nail
- Barrelever [presser foot]
- Square 16"x 24"
- Tape Measure
- Chalk "chalk line"
- Strips reversal
- [if needed]
- Cleaning Finitex and Carver

#### Installation stuck

- Recommended Adhesives:
- Urethane Adhesives Bostik's Best, BST, EFA, TKO, Vapor lock or single step.
- Any other adhesive meeting the same performance criteria.
- Trowel recommended by the manufacturer of the adhesive. [The correct size of teeth

for the trowel is very important to ensure good adhesion of the blade and the warranty.]

• Concrete nails 2" [50 mm] and strips 1" x 3" x 8" [25 mm x 75 mm x 245 cm] for create the fulcrum.

• Tape Blue "3M" or equivalent [removable tape].

• Roller 100 to 150 lb [45-68 kg].

• Cleaning Wipes for hands and tools Bostik's Ultimate.

• Cleaner Bostik's Ultimate Adhesive.

#### Installation stapled

• Staplers recommended:

• For floors 3 / 8" [10 mm] thick

• For floors 5 / 8" [15 mm] thick

• Bostitch 800-556-6696 [www.bostitch.com](http://www.bostitch.com)

SX150-BHF-2 clips with 1-1/4" [32 mm] to 1-1/2" [38 mm]

• Power drill and 1 / 16" [1.5 mm].

• Finishing nails - about 1-1/2" [38 mm].

• Floor screws.

You can also get some accessories pre-finished or pre-oiled, such as reduced nose stair, etc., from your authorized dealer Solū.

**Note: Solū is not responsible for damage caused by the use of inadequate tools or adhesive different from those recommended. All equipment installation must be at room temperature recommended for the installation ±22° C [± 72° F].**

#### PREPARATIONS:

Stapled stuck

#### HANDLING AND ACCLIMATIZATION

Remember, **installing a wood floor finish requires a little more time and care in handling the unfinished floors.** Handle blades with care to avoid damaging the surface finish.

##### Site preparation environment

• Installation of hardwood floors should be the last step of a construction or renovation.

• The heating system must be functional and room temperature must be maintained at ±22° C [± 72° F] for a week.

• The subfloor must be dry and basement well ventilated to avoid damage caused by moisture.

• When installing in the basement or concrete slab, make sure that all parts or objects adjacent to the ground [walls, subfloor, pipes, etc.] are tight. Use products cut vapor before or during installation in order to increase water resistance.

• Always keep the relative humidity to ± 45% [40 to 60%].

• Conditions relating to the radiant heating system:

• The installation of a radiant floor must be glued.

• The system must be tested and in operation for a few weeks before installing the floor.

• Close the system during installation and for the next 24 hours so that the adhesive can dry properly.

• The temperature of the wood's surface never exceed 27 ° C [80 ° F].

• If the pipes of the system are visible or exposed to the floor, you must cover with plywood 3 / 8" [10 mm] to distribute the heat evenly.

• Because of certain physical properties, Brazilian Cherry [Jatoba / Koubari] must not be installed over radiant floor.

#### Procedure

**Subfloor wood:** Using a wood moisture meter, **make sure the moisture content of the subfloor wood does not exceed 9%** and it does not differ by more than 2% of the floor that will be installed. If the humidity is too high, find the source and correct it if necessary, delay the installation of the floor and raise the heating and ventilation or install a vapor barrier. If the difference is not more than 4%.

**Concrete subfloor:** The subfloor of concrete must be cured for a **minimum 30 days**, but preferably between 45 and 90 days. Using a moisture meter to concrete, check for the presence of moisture. If so, the calcium chloride test must be performed.

**The moisture content of the concrete subfloor must not exceed 3 lbs per 1000 ft<sup>2</sup> per 24 hours.** If

over 3 lbs, install a complete waterproofing of concrete [sealant and adhesive] manufactured by Bostik, Sika or Franklin. You should consult the manufacturer's documentation to determine its guarantee, the limitation of its product and follow its recommendations and its installation methods.

The concrete floor is in the ground directly, must have been isolated in the concrete slab and sealed with a vapor barrier film.

**Note: Store sealed wooden boxes in the room where the floor will be installed at least 24 hours before installation.**

**The installer and the owner has full responsibility to check the rate moisture and sealing the subfloor and make sure it is and remains in recommended limits throughout the life of the floor.**

### SUBFLOOR

• **For stapled installation**, the subfloor must consist of a plywood minimum of 5 / 8 "[16 mm] thick or particle board" OSB "approved of 3 / 4 "[19 mm].

• **Sound**: Tighten the subfloor to the joists to prevent movement and cracking. Replace the existing floor or subfloor that would be damaged by water or have structural weaknesses. The concrete must be in a structurally sound.

• **Level**: The surface must be flat. The maximum tolerance is 3 / 16 "[5 mm] variation of 10 '[3 m]. If applicable, sand elevations with sandpaper 20 or fill uneven spots with leveling compound.

• **Dry**: The moisture of the subfloor must be within the recommended limits.

• **Clean**: The subfloor must be well brushed, smooth and free of debris, staples, from exposed nails, old adhesives or other dried products.

### PREPARATION

• Sketch installation to avoid unpleasant surprises.

• Determine the wall or starting point.

• Determine which way the blades are installed.

• Remove base boards door sills and the old floor covering if necessary.

• Using a hand saw, remove the space at the bottom of door frames, which will insert the hardwood strips on the bumpers.

• To improve the visual appearance, use multiple boxes at once and mix blades to ensure a variation of colors shades and lengths.

• From the start select the slides that fit best with the moldings transition that will be installed.

### Glue-down installation

#### PROCEDURE - Installation stuck

##### Step 1 - Establish the starting line

• Using chalk, draw a line parallel to the wall starting at 31 "[788 mm] for blades 2-9/16 "[65 mm] wide, 33-3/8" [848 mm] for blades 3-5/16 "[84 mm] wide, 30-1/4" [768 mm] for plates 5 "[127 mm] wide, or 32-11/16 "[832 mm] for blades 6-1/2" [185 mm] wide. The section between the starting wall and the line will become the working area for beginning of the installation and will be the last part of the floor to be covered. The measure you avoid narrowing the last row of blades while leaving the 1 / 4 "[6 mm] minimum required for the expansion joint.

• Nail the slats guides, inside the working area, along the line. these slats guides will serve as support for the installation of the first blade.

### Step 2 - Application of the adhesive

• Apply adhesive by sliding the trowel at an angle of 45 °. The adhesive that will settle between the teeth of the trowel will be the amount needed to apply. [Approximately one gallon for 30 to 50 square feet according to the manufacturer of the adhesive.]

**Note:** Do not spread the adhesive over an area that requires more than two hours to cover.

The adhesive may dry out and not to produce good adhesion. View information on the container of the adhesive. The reaction time for adhesion varies from manufacturer to the other. It can also be affected by temperature and relative humidity in the room.

### Step 3 - Installing the blade

- It is very important to start straight and square.
- Select the boards carefully. If necessary, cut and relocate to a place less visible blades considered.
- Using the work area, install the first blade 1 / 4 "[6 mm] wall perpendicular on your left side of the tongue blade against the lath, and press the blade into the adhesive.
- Install the following blades pointing you to the right until you have to cut the last board to complete the row.
- The blade selected to complete the first row should have a length sufficient to start the second row with the tip, so that remaining minimize losses caused by the cut. Leave 1 / 4 "[6 mm] between the wall and the end of each strip in each row.
- Start the second row with the left end should be at least 6 "[150 mm] longer or shorter than the strip used in the first row. The offset of transverse joints in a row to the other must be at least 6 "[150 mm]. Avoid the effect of alignment or too regular joints.
- Engage the tip of the groove in the tongue of the blade and lower it as close as possible to the adjacent blade. Slide the tongue side into the groove, then press on the blade.
- The subsequent rows are installed the same way as before.
- If recovery of the main section of the floor is finished, remove the slats guides and then install to the work area in the same way. Fit the last row of blades with lever bar in mind the need to have a space of 1 / 4 "[6 mm] minimum for the expansion joint.

### Notes:

- If you install an acoustic membrane, it must be bonded the subfloor and the wood boards will then be bonded to the membrane using the same adhesive recommended.
- Extremely precise blades may require the use of a "tapping block" to follow them well into each other.
- Do not put adhesive in the grooves of the blade, which would prevent the nesting perfectly with the next row of blades.
- Do not dirty your fingers with the adhesive to minimize cleaning. **Throughout the installation, immediately wipe the adhesive in contact with the surface the floor** using the wipes or cleaner adhesive Bostik's Ultimate. If the adhesive remains, use a paint thinner or gasoline lighter.
- Use blue tape "3M" to keep the blades in place. This will prevent the movement of the blades would cause spaces between them during installation.
- After installing a section of the floor, it is recommended to use the scroll as prescribed by the manufacturer of the adhesive [about 100 to 150 lb / 45-68kg] to ensure better contact with the adhesive strips. Wrap the roll of a protective film to prevent damage to the floor surface and use **during the active period of the adhesive**.

### Step 4- Installation of moldings

- If applicable, install transition moldings, stair nosings and reducers.
- Reinstall the baseboards, quarter rounds, making sure to nail them to walls and not to floor [to allow the natural movement of the floor].

### Step 5- Maintenance

- Wait 24 hours before replacing furniture and to allow heavy traffic.
- A few boards reserve for possible repairs.
- The installation is completed, vacuum floor thoroughly. Follow the maintenance guide Solū.

### INSTALLATION STAPLED

## PROCEDURE- Installation stapled

- Step 1 –Establish the starting line
- Using chalk, draw a line parallel to starting wall to 2-13/16" [71mm] for blades 2-9/16" [65 mm wide, or 3-9/16" [90mm] for blades 3-5/16" [84 mm] wide, 5-1/4" [133 mm] for plates 5" [127 mm] wide, or 32-11/16" [832 mm] for blades 6-1/2" [185 mm] wide, considering the 1 / 4" [6 mm] minimum required for the expansion joint. This online guide is to be perpendicular to the adjacent wall.

### Step 2 - Installing the blade

- It is very important to start straight and square.
- Select the boards carefully. If necessary, cut and relocate to a place less visible blades considered.
- Install the first board to 1 / 4" [6 mm] perpendicular to the wall to your right, side of the tongue blade placed along the starting line and the side of the groove facing the starting wall. Drill and nail the blade on top, as close as possible to the wall. The bottom of the wall moldings, or baseboards hide heads nails. Install the following blades pointing you to the left until you have to cut the last board to complete the row.
- The blade selected to complete the first row should be long enough to start the second row with the left end, which will minimize losses caused by the cut. Leave 1 / 4" [6 mm] between the wall and the end of the last blade of each row.
- Start the second row with the left end should be at least 6" [150 mm] longer or shorter than the strip used in the first row. The offset of transverse joints in a row to the other must be at least 6" [150 mm]. Avoid the effect of alignment or too regular joints.
- The first row of planks should be nailed by hand with a hammer, a nail set and finishing nails because of the wall obstructing the use of the stapler. Nails should be attached along the strip about 4" [100 mm] away from each other.

- The subsequent rows are installed the same way, but using the stapler. [See below for tips on using the stapler.] The clips should be located about 4 to 5" [100-125 mm] from each other, and more than 2" [50 mm] from the end of each blade.
- The last 4 or 5 rows should be installed the same way as the first rows due to the proximity of the wall. You may have to shrink the blades that run along the wall to let the 1 / 4" [6 mm] required for the expansion joint.

### Note:

- Extremely precise blades may require the use of a "tapping block" to follow them well into each other.

### Step 3 - Installation of moldings

- If applicable, install transition moldings, stair nosings and reducers.
- Reinstall the baseboards, quarter rounds, making sure to nail them to walls and not to floor [to allow the natural movement of the floor].

### Step 4- Maintenance

- A few boards reserve for possible repairs.
- The installation is completed, vacuum floor thoroughly.

## USE OF AIRSTAPLER

### General Tips

- The base of the stapler must always remain clean and smooth.
- Remove the stapler on the plywood or on a card rather than on the floor hardwood to avoid damaging the blades.
- Ensure that the stapler is always well supported on both the top and side of the blade before stapling.
- **Regularly check the status of the stapler and its operation to avoid damaging the blades.**
- While adjusting the air pressure depending on the subfloor, then check it regularly in the future.