



## RECLAIMED ENGINEERED FLOORING INSTALLATION GUIDE

Thanks for choosing our Reclaimed Engineered Flooring!

- You've made your selection
- You've measured the rooms and determined the layout
- You're ready to-begin ~

Before you start **Please REVIEW THIS INFORMATION** to insure a successful installation.

This is a brief description of

- Tools you'll need,
- Determining adequate subfloor requirements,
- Step-by-step installation instructions
- Clean-up and maintenance tips.

### RECLAIMED ENGINEERED WOOD FLOORING: Dimensions

#### Standard dimensions:

- Finished Thickness: 3/4" x 3, 4, 5 & 6" width x random lengths to 8'0"

#### Custom dimensions:

- Finished Thickness: 3/4" x custom width x random length to 8'0"
- Finished Thickness: 5/8" x custom width x random length to 8'0"

### INSTALLATION INSTRUCTIONS: Glue-Down or Nail Down TOOLS AND MATERIALS REQUIRED for PROPER INSTALLATION

#### Power Tools:

- Table Saw, Band Saw, Chop Saw, Jamb Saw and/or Jig Saw

#### Hand Tools:

- Hand Saw
- Tape Measure
- Floor Scraper
- Pry Bar
- Chalk Line
- Hammer
- Straightedge
- Rubber Mallet
- Tapping Block
- Safety Glasses
- 10' of string, Level or Laser Level (optional if using string or level)



### **Additional Tools and Materials for Glue-Down Installation:**

- Bostik's Best or other recommended flooring adhesive
- Trowel (see flooring adhesive for notch size required)

### **Additional Tools and Materials for Staple-Down/Nail-Down Installation:**

- Approved Pneumatic Stapler or Nailer (See Staple/Nail-Down section for approved tools)
- Compressor w/Regulator and Hoses
- Proper Flooring Adaptor (included with tool) Approved Staples or Nails (Cleats)
- 15 lb. Felt Paper
- Ear Protection

**NOTE: Along with the flooring, be certain that you have all the transitions and moldings needed to finish the job.**

## **SUBFLOOR REQUIREMENTS and PREPARATION**

### **Subfloor Inspection**

All subfloors and subfloor systems must be structurally sound and must be installed following their manufacturers' recommendations. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.

### **Subfloor Moisture Conditions**

A subfloor moisture test should be taken prior to installation, and though this is no guarantee of preventing future moisture problems, it is highly recommended. If an existing problem is present, remedial measures can be taken to correct the situation and reduce the potential for failure in the future. Subfloors can be tested using a quality moisture meter. The subfloor moisture content should not be greater than 10% and within 1-2% points of floor or 3 lbs./1000 using a calcium chloride test.

IF THE MOISTURE CONTENT EXCEEDS THESE LIMITS, DO NOT INSTALL THE FLOORING AND TAKE IMMEDIATE ACTION TO RESOLVE THE PROBLEM BEFORE PROCEEDING (Talk with a licensed building contractor for the best solution for any moisture issues).

### **The Subfloor Must be Flat**

A variance of up to ¼" in 10 feet is acceptable. To check, use either a 10-foot straightedge (i.e., a level) or laser level, or stretch a 10-foot string across the floor noting any dips or crowns. If these dips or crowns exceed ¼" in 10 feet, they must be leveled. On a concrete subfloor, use a Portland cement based leveling material to fill all low spots and sand all crowns to meet the ¼" in 10 feet requirement. On wood Subfloors a high quality latex-based leveling compound can be used.



## Structural Requirements

The subfloor must be structurally sound. Local building codes may only establish minimum requirements for flooring systems and may not provide adequate rigidity and support for proper installation and performance of a hardwood floor. Concrete subfloors, whether they are on-grade or below-grade should be constructed to prevent groundwater from penetrating the concrete. A minimum 3mil poly barrier should be installed below the concrete prior to pouring the floor.

This Reclaimed Engineered Flooring can be installed above -, on- or below grade and can be glued-down on concrete slabs, or stapled or nailed-down or raised wood subfloors. It can also be glued-down to above-grade suspended concrete subfloors ONLY if the suspended concrete is a minimum of 1½" thick and is structurally sound (without deflection).

If your installation is a glue-down over ceramic tile, porcelain tile, terrazzo or other existing hard surface, the surfaces MUST be free of wax and sealers. Glazed tiles and some smooth terrazzo should be roughed with 60-grit sandpaper or carborundum stone to enhance adhesion. In addition, check for loose tiles by tapping with a block of wood. Repair any tiles that are loose or broken to be sure they are secured to the subfloor. Fill grout lines with a high-quality, self-leveling Portland cement/latex underpayment.

If you are using the glue-down technique over vinyl tile, sheet vinyl or reinforced vinyl tile, be sure that these products are not loose. Re-glue or cut out any loose sections. Clean all vinyl flooring with a quality cleaner/stripper to remove wax and sealed. NOTE: Be certain that the sheet vinyl is NOT perimeter glued (glued only around the edge).

NEVER GLUE-DOWN *RECLAIMED ENGINEERED FLOORING* DIRECTLY TO A PERIMETER GLUED SHEET VINYL FLOOR.

### **CAUTION HEALTH HAZARD:**

DO NOT sand existing resilient tile, sheet vinyl flooring, backing or lining felt. They may contain asbestos 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.

All wood substrates MUST meet the following minimum criteria; a single layer of ¾"-thick, tongue-and-groove plywood or ¾"-thick structural grade oriented strand board (OSB) (Glue-Down ONLY) substrate over floor joists 16" on center. If the plywood or OSB substrate is less than ¾"-thick, a second layer, a minimum 3/8"- thick, underlayment-grade product, for a minimum total thickness of 1", must be installed perpendicular first for strength and stability. Use the underpayment manufacturer's installation guidelines for structural stability and to reduce the potential for squeaking.

**NOTE: Do not glue, staple or nail down Reclaimed Engineered Flooring over particleboard subfloors.**



**NOTE: Structurally sound floors will not have movement or deflection. Subfloors with movement or deflection and improperly installed subfloors can and will eventually cause squeaking. It is the installers' responsibility to be sure the subfloor system is free of movement, deflection and is installed in accordance with local building codes and minimum requirements described above. Problems caused by these issues are not covered under any warranties.**

**CAUTION: Wood substrates fastened directly to concrete floors are not recommended. This construction practice creates a non-ventilated installation and can result in deterioration of the wood substrate/flooring and can cause potential joint telegraphing of the substrate joints and is therefore not warranted.**

## **PRE-INSTALLATION**

1. Remove existing wall base, quarter round, door threshold and other transitions. If possible, save them to reinstall after the flooring is installed.
2. Undercut all door casings 1/16" higher than the thickness of the flooring being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or a power jamb saw set at the correct height.
3. Sweep or vacuum the entire floor to remove all loose dirt, dust and debris.

**NOTE BEFORE INSTALLATION: Match all transitions and moldings to planks that have similar color and graining for best appearance. Set them aside for use as needed.**

### **Inspect the Flooring**

Wood is a natural product, containing natural variations in color, tone and grain. Before any floor is shipped, each plank goes through many inspection procedures. Variations in color, between planks, is to be expected. We *do* not warrant against these natural variations between planks or between variations between samples and the flooring. We urge and expect you, as the final inspector – whether consumer or installer, to inspect for color, finish and graining PRIOR to installation. Care should be taken PRIOR to installation to remove or repair particular characteristics you do not desire.

### **Blending of Bundles**

To achieve a uniform appearance across the entire floor, we highly recommend that you open several bundles of flooring and dry-lay the flooring, mixing the planks from several bundles, being certain to "rack" the planks (see "Racking the Floor" below). This will allow you to blend the planks for maximum aesthetic appearance. Make certain the room is well lit to ensure color is consistent and that any visual defects can be seen and removed.

PLEASE NOTE: We do not accept responsibility for any costs incurred when plank(s) with visible defects have been permanently installed.



This Reclaimed Engineered Wood flooring is a high-quality, veneer-faced engineered floor, manufactured to high tolerances. The engineered planks have virtually no expansion or contraction compared to solid wood flooring. This unique structural ability permits versatility in selecting the direction the floor can be installed and increases choices in creating designs. (Whenever possible, however, install the planks perpendicular to joists for maximum strength).

This stability also allows the planks to be installed against walls or other vertical surfaces such as sliding glass doors, cabinetry and fireplaces. We always recommend however a minimum ¼" gap between the flooring and any walls where wall base and/or quarter round will be installed, to eliminate rubbing against walls.

## **Racking the Floor**

This process is essential to achieve a random appearance. Start by either using random length planks found in the bundle differing by at least 6". When starting these first few rows or courses, make certain to always measure from the tongue end of the plank for cutting. As you continue working across the floor, be certain to maintain a 6" to 10" minimum between end joints on all adjacent rows. Randomly install different lengths to avoid a patterned appearance.

**NOTE: Don't waste materials; the end cuts from starter rows should be used at the opposite side of the room to complete rows or used to start the next row.**

## **Underlayment Installation (for staple or nail down installations only)**

When you are installing the flooring using the staple or nail down method, the next step is to cover the subfloor with 15lb. asphalt felt paper (red rosin paper is also acceptable). Install the felt by rolling it out over the cleaned subfloor and tack it into place. Roll the next run out and butt the joints, and DO NOT LAP the side joints of the felt paper. This will help keep dust away from the wood floor, retard moisture from below, (there is no complete moisture barrier system for staple or nail-down applications ) and may prevent squeaks from occurring.

## **INSTALLATION LAYOUT**

1. Select a starter wall. An outside wall is usually best because it's more likely to be straight and square with the room.

**STEP #1. From the starter wall, at both ends, measure the width of the room and calculate the width of the last row of planks. If the last row is less than 2" for 5" wide planks, 4" for 8" wide or 5" for 10 ½" wide planks add that dimension to the wide of the plank being used and divide the sum in half.**

**STEP #2. Now measure out from the starter wall, at each end, the width of two planks or one plank for flooring over 10" wide.**

**STEP #3. Add the dimension from step #1 to STEP #2 to determine the location of the chalk line for your first row.**



2. Snap a chalk line from these points, parallel to the starter wall and perpendicular to the adjacent walls.
3. Since most walls are not straight, the edge of some planks installed against that wall may have to be trimmed along their width to fit. Remember: It is not necessary to leave an expansion space, but a minimum ¼" is recommended.

### **Install a Straightedge**

Prior to installation, it is highly recommended that a straightedge be firmly secured along the chalk line to act as a guide and to help prevent the first row of planks from shifting during installation. This straightedge could be a straight 2×4 or metal angle iron. As an alternative method of securing the planks, the first row can be face-nailed with finishing nails, in a wood subfloor, or sprig/pin nailed into a concrete subfloor.

### **INSTALLATION of FLOORING: GLUE-DOWN METHOD**

**NOTE: With the glue-down installation, you MUST always install the flooring using the "OFF THE FLOOR" technique. In other words you MUST be working from the subfloor and NOT standing or walking on the newly installed flooring during installation. Failure to follow this procedure can result in the planks moving during installation, creating gaps at both end and side joints.**

**IMPORTANT NOTE: Bostik's Best is a moisture cured urethane adhesive. Open time for this adhesive varies with humidity and temperature. In addition, the proper notch sized trowel MUST be used for correct coverage and proper adhesion. This information can be found on the cans on Bostik's Best adhesive.**

**NOTE: Failure to follow all manufacturer's instructions for application of the adhesive will void all adhesion warranties, expressed or implied.**

1. Spread adhesive from the chalk line/straightedge out to approximately the width of approximately 2 planks using the correct trowel for the flooring being installed (see adhesive manufacturer recommendation).
2. Install the first row of starter planks along the chalk line/straightedge and secure into position with the tongue facing the starter wall.

**NOTE: Proper alignment is critical. Misaligned starter rows can ruin the entire installation and can cause side and end gaps. When you complete the starter row, begin the next row.**

3. The precision-engineered tongue-and-groove system creates a very stable floor installation. But you MUST make certain that you have made a proper connection between planks. Using a tapping block, tap the planks together until the tongue-and-groove is flush and tight and no gaps are present at the sides and ends of adjacent planks.

**NOTE: NEVER EVER use a rubber mallet or hammer directly on the flooring to engage the tongue-and-groove. This can damage the flooring and/or finish and is NOT covered under the warranties.**



4. When you are certain the first two starter rows are straight and secure, spread 2 1/2 to 3 feet of adhesive at a time, across the length of the room, and continue the installation as before, installing and tapping planks into place. As a general rule, never spread more adhesive than can be covered in approximately 30 to 45 minutes.

**NOTE: As stated earlier, it is extremely important to blend planks from several bundles to ensure a good balance of color and graining.**

**WARNING: DO NOT walk on newly installed flooring until the adhesive cures (Approximately 24 hours).**

Walking on planks before adhesive is cured can cause planks to move, causing gapping. It is also NOT advisable to use ANY type of tape on prefinished floors. Gapping of planks, due to movement and damage caused by the use of ANY tape on the finish are NOT warrantable defects.

5. When you get to the end wall you will likely be required to cut the width of the final row to fit against the wall. To do this, lay the plank in position and scribing a line on the plank. Lay the cut plank into place and use a pry bar on the edge near the wall and push tightly into place.

6. Go back to the beginning of the installation and remove the straightedge. Measure and cut the row at the starter wall to fit as necessary.

7. Spread adhesive on the exposed subfloor near the starter wall and install the final two rows using the pry bar to position the last row into place.

**IMPORTANT: Retain several leftover planks in case a repair or replacement is ever needed.**

8. In typical climates, allow the adhesive to cure for approximately 24 hours before permitting foot traffic or moving furniture onto floor. In areas where additional curing time may be required (low humidity or lower temperatures), more time may be needed.

**IMPORTANT: Failure to allow the adhesive to cure properly before allowing foot traffic and moving furniture onto floor can cause the flooring to move, creating gaps between the planks. This gapping is NOT covered under any warranties.**

9. CLEAN UP. Clean any wet adhesive from the flooring as soon as possible. If the adhesive has dried, use mineral spirits on a clean cloth.

## Final Inspection

After the floor has been cleaned, inspect the floor for nicks, scratches, gaps or planks that may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with quality touch-up products. In typical climates, the new floor can accept foot traffic within 24 hours. In areas where additional curing time is required, more time may be needed.





## **Floor Protection During Construction**

If your flooring is installed during construction (we recommend that the flooring be installed after all construction is complete) ALWAYS protect the surface of the installed flooring during construction by laying a quality brown “craft-type”, rosin paper or other paper that will allow the floor to breathe, over the floor and taping it to the baseboards.

NEVER use plastic or polyethylene sheeting to cover the floor since they will trap moisture that will damage the flooring.

## **INSTALLATION of FLOORING: STAPLE / NAIL-DOWN METHOD** **Set up and use of Pneumatic Staplers and Nailers**

Inspect equipment prior to use and become familiar with the tools and their operation, especially the pneumatic stapler and staples. When used improperly, staples/nails can damage wood flooring and injury you and others. Test the tools on scrap material first.

Parts that engage the planks must not have any sharp burrs that can scratch or damage the flooring, especially the prefinished surface. Make certain the tool’s adapter seats properly in the tongue of the flooring.

**WARNING: Make sure the adapter size for the pneumatic stapler or nailer matches the thickness of the product being installed. In other words. Be certain to use the 1/2” adapter when installing 1/2” products.**

See the manufacturer’s instructors for complete setup and operation. DO NOT exceed the manufacturer’s recommended pressure setting for the compressor since this can damage the stapler or cause harm to you or others. Calibrate the compressor so the staples/nails are properly set into the nail pocket to avoid damaging the flooring and to prevent squeaking.

**NOTE: if the stapler/nailer is improperly set up, the staples will not be positioned correctly and may cause dimpling, peaking, squeaking or crackling of the floor.**

Practice and Adjust: On a scrap piece of flooring, set the stapler/nailer flush onto the tongue side of the plank and install a staple. Should the staple penetrate too deeply or not deeply enough, reduce or increase the pressure, using the regulator, until the staple is flush. When the top of the staple/nail crown is flush with the nail pocket, the tool is properly positioned.

**NOTE: Improper stapler/nailer adjustment, compressor psi and incorrect stapler/nailers can damage the flooring. This damage is NOT covered under ANY warranties.**

1. Install the first row of starter planks along the chalk line/straightedge and secure into position with the tongue facing AWAY from the starter wall (toward you). Pre-drill pilot holes through the face of the plank (preferably in the dark grain), near the chalk line side and secure with finishing nails.





2. Engage the stapler or nailer onto the tongue side of the plank, using with the proper adapter (see stapler/nailer instructions for proper set-up), and install the staples or nails. Install the staples or nails no further than 2" from the end of each plank and 6" to 8" on center.

**NOTE: Proper alignment of the starter row is critical. Misaligned starter rows can ruin the entire installation and can cause side and end gaps.**

3. The precision-engineered tongue-and-groove system creates a very stable floor installation. But you MUST make certain that you have made a proper connection between planks. Using a tapping block, tap the planks together until the tongue-and-groove is flush and tight and no gaps are present at the sides and ends of adjacent planks.

**NOTE: NEVER EVER use a rubber mallet or hammer directly on the flooring to engage the tongue-and-groove. This can damage the flooring and/or finish and is NOT covered under the warranties.**

4. When you are certain the starter row is straight and secure, continue to staple/nail the remaining rows using the same stapling schedule of no further than 2" from the end of each plank and 6" to 8" on center.

5. NOTE: As stated earlier, it is extremely important to blend planks from several bundles to ensure a good balance of color and graining.

6. You will likely NOT be able to use the stapler/nailer on the last row or two because of interference from the ending wall. To fasten the final planks into place, you must either manually nail into the tongue, or face-nail through the surface.

7. To attach into the tongue, drill pilot holes at a 45% angle to the floor and install finishing nails. Alternately, pre-drill pilot holes in the face and install finishing nails or using a brad tacker to secure the planks in place.

8. When you get to the end wall, you will likely be required to cut the final row in width to fit against the wall. Do this by laying the plank in position and scribing a line on the plank. After cutting the planks to the proper width, install them by using a pry bar against the end wall pushing the last plank the others to get a tight fit. Face nail or use a brad tacker to secure the planks in place.

9. Go back to the beginning of the installation and remove the straightedges. Measure and cut the row at the starter wall to fit as necessary.

10. Install the planks, using a pry bar to position the final two rows into place and face-nail or tack as needed.

**IMPORTANT: Retain several leftover planks in case a repair is ever required.**



## **Alternate Manual Nailer Method**

If a manual nailer is desired, use the POWERNAIL Model 50C with 1 1/4" cleats. Again, staple every 4" to 6" on center and no more than 1" from the end of each plank, while using the same procedures described in the previous sections.

PLEASE NOTE: If you use a manual nailer it is highly recommended that you practice with scrap material so you get a feel for the force required to set the staple as excessive force will cause dimpling and damage to the tongue which can telegraph to adjacent planks.

**WARNING: Use of any non-recommended staplers or nailers may result in dimpling or damage to planks. Do not use manual or pneumatic staplers not recommended.**

## **SPECIAL NOTE ABOUT STAPLE AND NAIL-DOWN INSTALLATIONS**

Some squeaking, popping and crackling of the flooring is inherent to all staple-down and nail-down floor installations. This is NOT a manufacturing defect and is therefore is NOT covered under warranty. You can help reduce squeaking, popping and crackling by being sure that the subfloor is structurally sound, does not have any loose decking or joists and is swept clean prior to installation. You should also be sure the stapler/nailer is setting the fastener properly, not damaging the planks and you are using the correct nailing schedule.

## **Floor Protection During Construction**

If your flooring is installed during construction (we recommend that the flooring be installed after all construction is complete) ALWAYS protect the surface of the installed flooring during construction by laying a quality brown "craft-type", rosin paper or other paper that will allow the floor to breathe, over the floor and taping it to the baseboards.

NEVER use plastic or polyethylene sheeting to cover the floor since they will trap moisture that will damage the flooring.