



All-Natural & Beautiful
**FLOORING
INSTALLATION
GUIDE**

Advantage Flooring Comparison



Engineered Flooring

- Solid hardwood wear layer
- Prefinished for easy installation
- Available in either natural or dark finish
- Suitable for use on cured concrete slabs
- Save money over solid hardwood flooring

Solid Flooring

- Traditional solid wood construction
 - Durable prefinish available
- Natural beauty with just a clear finish
- Nail-down installation (over a plywood subfloor)
- Can be easily refinished many times

FLOORING INSTALLATION GUIDE

ABOVE GROUND LEVEL

Engineered Flooring install options:

- Glued over aged concrete slab.*
- Glued or nailed over plywood subfloor.

Solid Flooring install options:

- Nailed over plywood subfloor.

GROUND LEVEL

Engineered Flooring install options:

- Glued over aged concrete slab.*
- Glued or nailed over plywood subfloor.

Solid Flooring install options:

- Nailed over plywood subfloor.

BASEMENT

Engineered Flooring install options:

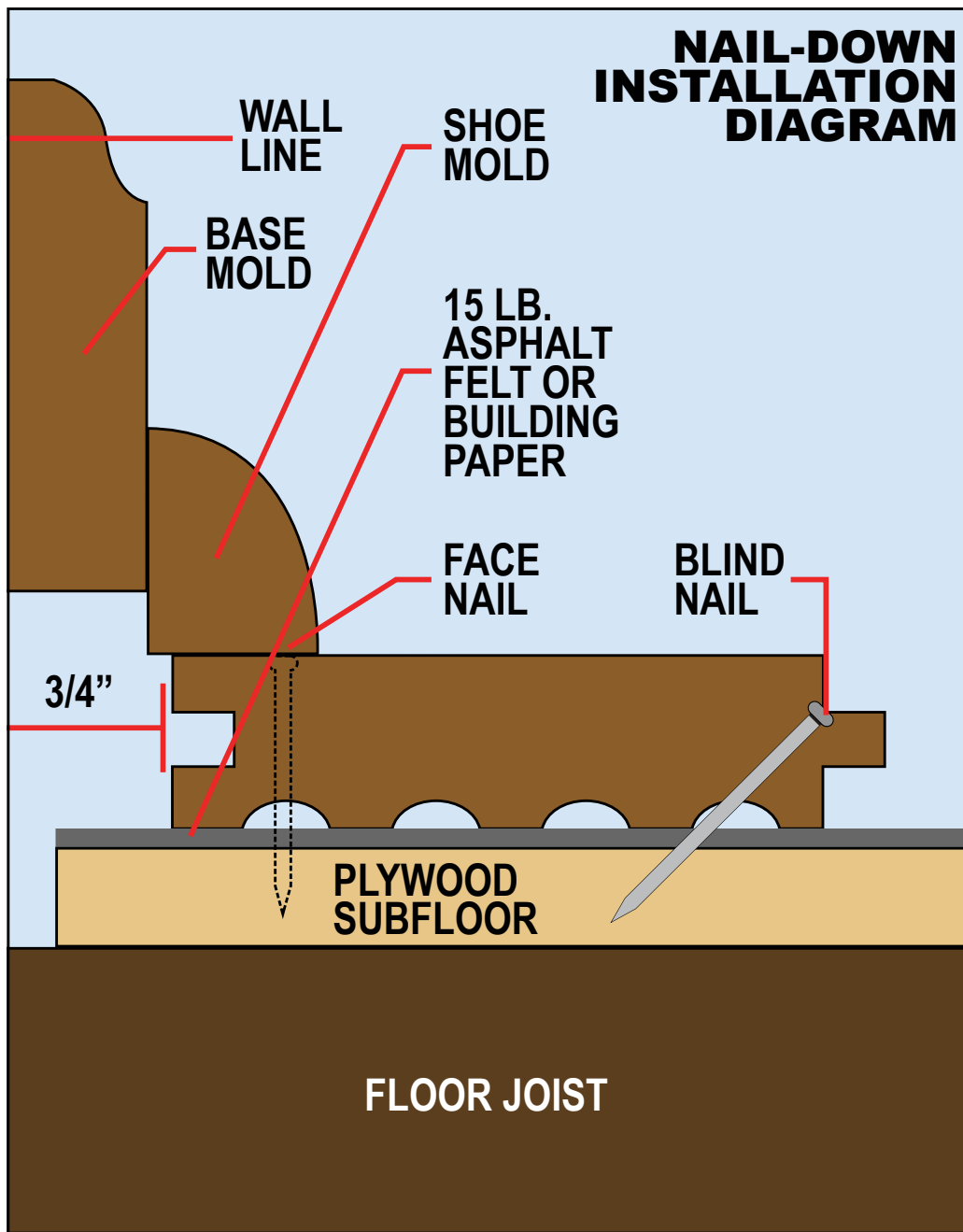
- Glued over aged concrete slab.*

Solid Flooring install options:

- Due to moisture issues in below grade installations it is **NOT** recommended.

Things to Consider...

- Where is your flooring being installed - Are you able to nail your floor to a plywood subfloor? Are you installing your flooring in a basement or high-moisture area of your home?
- Foot traffic - Is your flooring being installed in a high-traffic area which may need to be sanded and refinished in the future?
- Floor finish - Do you want to finish your floor on-site with your own finish or do you want to install prefinished flooring?



Installation Instructions - Over Plywood Subfloor
Read the entire instructions before starting your project.

These instructions cover installation methods for flooring applied over a plywood subfloor.

Preparing Your Subfloors:

Before installing new hardwood flooring the subfloor should be clean, smooth, level, and structurally sound.

Prior To Installation Steps:

Prior to installing your new hardwood floor you must remove and stack the flooring in the room in which it will be installed. Allow the flooring to acclimate for 7-10 days, this will give the wood time to adjust to your home's humidity level.

Cover the subfloor with a layer of 15-pound asphalt felt or Red Rosin paper to provide a moisture barrier and minimize squeaks. Mark the centerline of the room (as discussed in step 1). If the room is out of square, position the tongue of the first row parallel to the centerline and rip the groove side at an angle parallel to the wall.

Use a radial arm saw or chop saw to cut the boards to length. When blind-nailing with a hammer and finishing nails, do not drive the nails flush with the hammer as this will leave indentations. Instead, leave each nail head projecting up about 1/8 inch, then use a nail set to finish driving the nail so that the nail head is flush with the wood.

Nail Down Installation – Over Plywood Subfloor

1. Cover the subfloor with a layer of 15-pound asphalt felt, or Red Rosin Paper, overlapping seams by about 3 inches. (see fig. m)
Tack down with a staple gun.

Measure the room's width at two or more points to establish an accurate centerline, then snap a chalk line parallel to your starting wall.

2. To indicate the edge of the first row of flooring, snap another chalk line about 3/4 inch from the starting wall exactly parallel to your centerline. This 3/4 inch gap between the flooring and the wall will allow for expansion; the gap will be covered by the shoe molding or baseboard molding.

3. Choose the longest planks for the first row. Near the wall, where the nail heads will be covered by your shoe molding, drill pilot holes for 1 1/2 inch finishing nails. Then face-nail the first row through the plywood subflooring to the floor joists. Use a nail set to recess the nails below the surface. (see fig. n)

4. Blind-nail this and the next two rows by hand. Drill pilot holes at a 45-to-50-degree angle through the tongues, centered on each joist at every 10 inches along the lengths. Fasten with 1 1/2-inch finishing nails. Use a nail set to finish driving each nail.

5. When installing the second row and every row thereafter, move a short scrap piece of flooring along the edge and give it a firm tap with a mallet or hammer to tighten the new row against the previous row before nailing. (see fig. o)

Remember that end joints in two adjacent rows should not be closer than 6 inches (15cm); end joints should also not line up over a joint in the subfloor.

6. If you're installing flooring over a large area, use a flooring nailer once you've installed the first three rows. Set it onto the board's tongue and, using a heavy rubber mallet, strike the plunger to drive 2-inch nails through the tongue into the sub-floor. Be very careful to avoid scratching or otherwise damaging the flooring surface when using a flooring nailer.

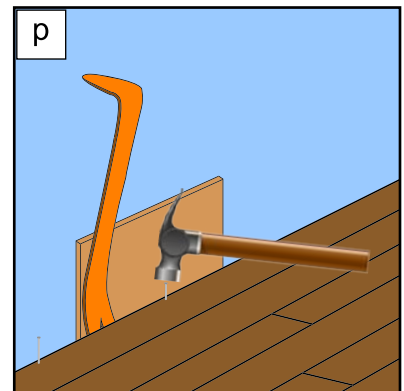
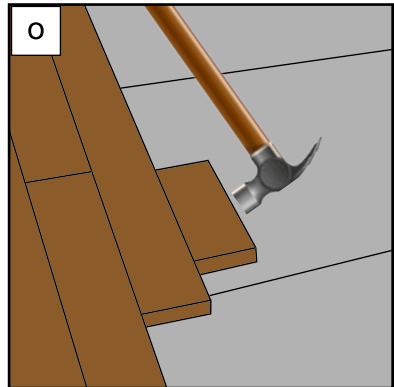
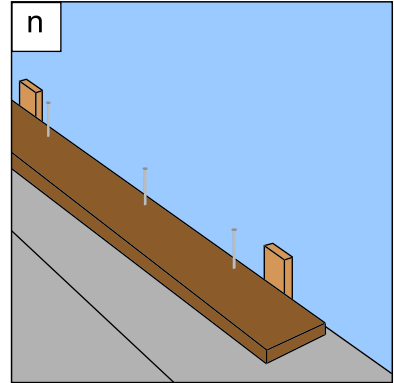
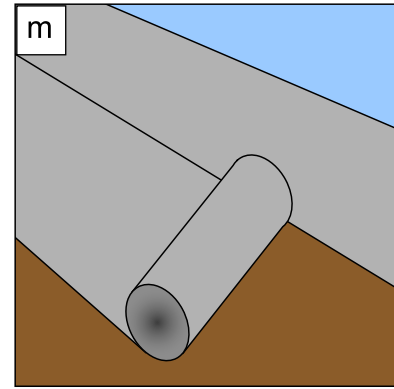
7. When you reach the final row, use a block and a pry bar to wedge the last boards tightly into position. Drill holes and face-nail boards where baseboard or baseshoe molding will cover. Set the nail heads below the surface using a hammer and nail set. (see fig. p)

Final inspection

After the floor is cleaned, reinspect the floor for nicks, scratches and planks that may have moved during installation or any other imperfections that need attention. In typical climates, floors can accept foot traffic within 8-12 hours. Arid climates may require more curing time.

Floor protection during construction

To protect the completed floor during construction, lay cloth painters tarps over the floor and tape them to the skirting boards. Never use plastic or polyethylene to cover the floor since they will trap moisture. Covering materials must allow the floor to breathe.



Glue Down Installation – Over Concrete Subfloor

Installation Preparation Instructions *Read the entire instructions before starting your project.*

These instructions cover installation methods for flooring applied over concrete slabs. The recommended application to an aged concrete slab is to glue (Urethane adhesive only) flooring directly to the slab surface.

1) INSPECT EACH PLANK *(see fig. a)*

Wood is a natural product containing natural variations in color, tone and grain. Color variation between planks is to be expected in natural wood flooring. Remove flooring from cardboard boxes and allow flooring to acclimate for a minimum of 7 days in the same area where flooring is to be installed. Use a moisture meter to ensure that wood flooring is properly acclimated to an average 6-8% moisture prior to installation. A dehumidifier placed in the room may aid in achieving these levels.

We urge you to inspect for color, finish and grain BEFORE installation. Care should be taken during the installation process to cut out characteristics that you do not desire. We suggest you use cut planks as pieces to begin each new row and to 'rack' the flooring, staggering joints at a minimum of 6 inches apart to ensure a random appearance.



2) SUB FLOOR PREPARATION *(see fig. b & c)*

- Remove any existing floor coverings. Do not apply Engineered Flooring™ over existing floor coverings.
- Make sure subfloor is clean and free of any dust, oil, dirt, grease, wax, sealers, paint, adhesives or any other substance that would hinder adhesion. (See figure b.)
- Make sure subfloor is dry. Using an approved moisture meter, measure the moisture content in the subfloor. For a plywood subfloor it should be between 6% and 10%.
- Make sure subfloor is structurally sound.
 - Concrete should be smooth, crack free, at least 6 months old, and fully cured as to not add moisture to the flooring.
 - Planks may be nailed to a single layer of 3/4" thick tongue and grooved plywood. Plywood should be securely glued and nailed to floor joists on 16" centers.

a. If the underlayment substrate plywood is less than 3/4" thick or is a wood product other than plywood, add a second cross layer for strength and stability not less than 5/16" thick. To prevent squeaking, use ring shank nails, coated nails or coated staples every 6" to secure the second layer. Glue (construction adhesive) and screw down plywood, when installing any added layers of plywood to the subfloor.

Wood product subflooring should be covered with a layer of felt roofing paper or Red Rosin Paper prior to nailing flooring down.

Structurally sound wood floors should not have movement or deflections. Subfloor movement or improper subfloor installation may eventually cause squeaking. High moisture content of subflooring or concrete slabs may cause cupping, twisting, and other problems in the finished hardwood flooring. Excessive moisture of the subfloor is the leading cause of many wood flooring problems, so be sure to only install wood flooring over adequately dried subflooring and well cured slabs. A dehumidifier used for several days in the installation area prior to bringing flooring in to acclimate will help to remove excess moisture. Ensure that any basement or crawl space under flooring area is adequately dry as not to add moisture issues to the flooring area.

3) BLENDING OF CARTONS

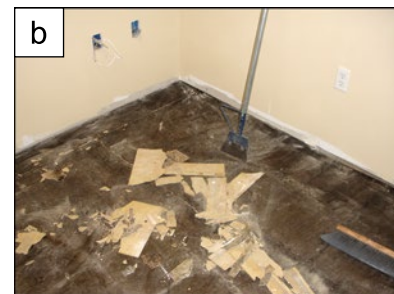
To get a more uniform appearance across the complete floor, it is advised to open several cartons of flooring and stack the planks in the work area so the flooring is blended during installation.

PLEASE NOTE: Engineered Flooring manufacturers, agents, reps, distributors, retailers, and other related parties accept no responsibility for costs incurred when a floor with visible defects has been permanently installed or when installation instructions are not properly followed. Defects should be culled from flooring prior to installation.

Please keep in mind that it is always a good idea to retain a few planks in case a repair is ever required.

Preparing Doorways and Skirting

1. Remove existing base molding, quarter round and doorway thresholds. Save to reinstall later to cover any unattractive edges.
2. Undercut all door casings 3mm (approx. 1/8") higher than the thickness of the flooring to be installed. Put a scrap piece of plank on the substrate as a guide and cut the door casing with a handsaw or power undercut saw set to the correct height.



Adhesive Installation – Over Concrete Slab

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

2. Measure out from the wall the width of 2 planks, plus an allowance of 13 mm (approx ½") gap along the wall for expansion room for the flooring. (see fig. h for proper gap spacing from walls) Failure to allow a gap along all walls will result in future buckling of flooring. This gap is intended to be covered with the reapplication of the base and shoe moldings. Expansion room should be allowed along entire perimeter area of the room. (see fig. d)

3. Snap a chalk line. (see fig. e)

4. Spread Urethane Wood Flooring adhesive from chalk line to wall with a 1/8" x 1/8" square notch trowel. Do not use water based adhesive as it will add moisture to the flooring project, which may cause instability and other flooring issues. (see fig. f)

5. Most walls are not straight so set the flooring to the chalk line for straightness, remembering to allow 13mm (approx 1/2") gap along wall for expansion (see fig. g).

6. Install the first row of starter planks (flooring groove should be facing the starter wall) and secure into position. Proper alignment is critical. Misaligned starter rows can ruin your installation. Professional installers sometimes firmly secure a straight edge along the chalk line (2x4's work well), as a guide and to prevent planks from shifting in wet adhesive. Other installers prefer to install a few rows of flooring precisely laid straight. They then allow the flooring to dry for several hours before proceeding. Be sure to scrape excess glue from the subfloor so that excess dried glue doesn't hinder installation of the remaining floor. This method allows for a solid racking of the flooring for tightness without moving your starter rows around.

7. Use a scrap wooden tapping block to tap the planks until the tongue and groove snaps into place.

8. When the first 2 starter rows are secure, spread a 2-1/2 to 3 feet wide area of adhesive the length of the room. Avoid clustering end joints. Stagger random lengths so that end joints are no closer than 15 cm (approx 6 inches). (Never lay more adhesive than can be covered in 20 minutes. If the adhesive has set and will not transfer to the back of the plank, scrape up the adhesive and apply a fresh layer.) (see fig. h)

9. Place planks into position in wet adhesive and tap into place with a scrap wooden tapping block. (see fig. i)

10. After several rows of planks are installed, lay down perpendicular strips of masking tape or blue painters tape to help hold the planks securely while the glue cures. Repeat this process as the installation progresses.

11. Check over installed area every few rows as it may be necessary to push flooring to close gaps. (see fig. j)

12. Retain a few planks in case a repair is ever required.

13. After every few rows, clean any adhesive accidentally transferred onto the finish surface of flooring planks with mineral spirits while still wet. (see fig. k)

14. Peel up masking tape within 24 hours of installation.

Final inspection

After the floor is cleaned, reinspect the floor for imperfections such as nicks, scratches and planks that may have moved during installation. (see fig. l) In typical climates, floor can accept foot traffic within 8-12 hours. Arid climates may require more curing time.

Floor protection during construction

To protect the completed floor during construction, lay cloth tarps over the floor and tape them to the skirting boards. Never use plastic or polyethylene to cover the floor since they will trap moisture. Covering materials must allow the floor to breathe.

