

3/4" SOLID INSTALLATION INSTRUCTIONS

Professional Installation Recommended

Nail-Down Installation Instructions Solid 3/4" x 7" x Random Length (6' – 10')

Thank you for choosing Bois Chamois Vintage Hardwood Flooring. Protect your investment; thoroughly review and adhere to the following installation instructions.

Please note that these are instructions for the experienced hardwood flooring installer. For more detailed information on the tasks of installing hardwood flooring, please contact the National Wood Flooring Association (NWFA) at 1-800-422-4556 or visit www.nwfa.org.

Installer/Owner Responsibility

Hardwood flooring is a natural product; therefore defects in the flooring can occur in the manufacturing process or naturally as a characteristic of the wood. Bois Chamois 3/4" hardwood floors are manufactured within accepted industry standards, allowing for up to 10% defective product based on the original hardwood flooring purchase order. Order 10% additional flooring product above actual square footage requirements to allow for cutting and grading of material.

Prior to installation, the installer assumes all responsibility for final inspection and quality of the product. Flooring should be carefully examined for finish and quality. Do not install hardwood flooring that is unacceptable; contact seller immediately.

The installer must determine that the jobsite environment and sub-floor surfaces meet applicable construction and material industry standards. Bois Chamois declines any responsibility for job failure resulting from deficiencies associated with sub-floor or job-site environment.

The installer must hold out or cut off defective flooring material during installation.

Basic Tools and Accessories

Rubber Mallet	4d-6d Flooring Nails	Jamb saw or hand saw
Chalk Line	Pencil	15 lbs. asphalt felt
Table saw or band saw	Hammer	Tape measure

Broom

Power manual 45 T&G Powernailer, pneumatic 445 Powernailer or other machines designed or adapted specifically to 3/4" solid wood flooring.

Quality moisture meter with manufacturer's relevant wood species calibration figures.

NOTE: 3/4" is meant for nail-down installation only.

STEP 1: PRE-INSTALLATION**Site Inspection**

Prior to installing hardwood floors, the building must be structurally complete and enclosed, including installation of exterior doors and windows. Concrete, masonry, drywall, and paint must also be complete, allowing adequate drying time as to not raise moisture content within the building.

HVAC systems must be fully operational at least 14 days prior to flooring installation, maintaining a consistent room temperature between 60-75 degrees Fahrenheit and relative humidity between 35-55%. This not only stabilizes the building's interior environment, but also is essential when acclimating hardwood flooring to the job-site.

Exterior grading, directing drainage away from the structure, as well as gutters and downspouts, should also be completed. Floors can only be installed on or above grade level and are not recommended in full bathrooms.

It is essential that basements and crawl spaces are dry. Crawl spaces must be a minimum of 24" from the ground to the underside of joists. A vapor barrier must be established in crawl spaces using 6 mil polyethylene (poly) film with joints overlapped and taped.

During the final pre-installation inspection, sub-floors must be checked for moisture content using the appropriate metering device for wood.

STEP 2: EQUALIZING HARDWOOD FLOORING

Wood is a porous material with a natural cellular structure that expands and contracts depending on the amount of relative humidity present in the surrounding atmosphere. Equalizing moisture content to the job-site equilibrium point before installation is essential to stabilizing movement after installation.

Handle and unload hardwood flooring with care and store within the environmentally controlled site in which it is expected to perform. Flooring stored upon "on-grade" concrete floors should be elevated at least four inches to allow circulation under bundles. Hardwood flooring must acclimate for as long as necessary to meet minimum installation requirements for moisture content. Using the equilibrium moisture content chart below, determine the proper moisture content for the installation. Always use a moisture meter to determine where the flooring and present job-site conditions are in relation to the projected final equilibrium point.

EQUILIBRIUM MOISTURE CONTENT CHART

Temp. Relative Humidity, Percent

	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	98
30° F	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	269
40° F	1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	269
50° F	1.4	2.6	3.6	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.3	11.2	12.3	13.4	14.8	16.4	18.4	20.9	24.3	269
60° F	1.3	2.5	3.6	4.6	5.4	6.2	7.1	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	268
70° F	1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	266
80° F	1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	260
90° F	1.2	2.3	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	260
100° F	1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	256

Monitor the flooring and job-site conditions as they acclimate. If the wood is neither gaining nor losing moisture, an equilibrium condition has been reached.

NOTE: Equilibrium points vary dramatically throughout the country, from the dry desert areas of the Southwest to moist areas along the Gulf of Mexico. In addition, a wide range of relative humidity can be experienced between individual job-sites within the same basic locale. Different heating/air conditioning systems can also dramatically alter on-site relative humidity. As a result, no one fixed moisture content is right for all situations, and it is up to the individual installer to establish the proper moisture content for each installation.

STEP 3: RECOMMENDED SUB-FLOORING

Preferred - 3/4" (19mm) CDX Grade Plywood or 3/4" (23/32") OSB PS2 Rated Underlayment with a Minimum 40 lbs. Density

Minimum - 5/8" CDX Grade Plywood with a minimum 40 lbs. Density

**Do not nail over particleboard or similar products, including gypcrete.
DO NOT INSTALL THIS FLOORING OVER RADIANT HEAT FLOORING.**

STEP 4: SUB-FLOOR PREPARATION

Sub-floors must be:

- Dry and free of wax, paint, oil, and debris. Replace any water-damaged or delaminated sub-flooring or underlayments. Scrape smooth and sweep prior to installation.
- Level/flat within 3/16" over 10' and/or 1/8" over 6'. High areas or joints can be sanded flat. Low spots can be lifted to flat using shims or layers of builders felt between wood and sub-flooring during installation.
- If plywood or equivalent, sub-floor must be structurally sound prior to installation. Sub-floor must be properly secured with nails, or screws every 6 inches along joists to reduce the possibility of squeaking after final installation.
- Appropriate moisture tests must be performed as outlined in the "Step 5: Testing for Moisture Content" section listed below.

Minimum thickness sub-floor material recommendations are satisfactory for 16" on center joist spacing. Thicker sub-floor recommendations will allow up to 19.2" joist spacing. When joist spacing is greater than 19.2" on center, flooring will exhibit minimum performance. Minimum performance may result in movement, gaps, and/or noises. A second layer of sub-flooring material bringing the overall thickness to 1" – 1 1/8", will provide optimum results when joist spacing exceeds 19.2" on center. Sub-floor panels should be spaced 1/8" apart to allow for expansion.

Hardwood flooring should, whenever possible, be installed perpendicular to flooring joists. Do not install Bois Chamois solid floors over existing glue-down wood floors or over wood floors that exceed 3 1/4" face size. In these applications, or when installing Bois Chamois solid floors parallel to existing wood floors, install an additional 1/4" layer of plywood to assist stabilization.

STEP 5: TESTING FOR MOISTURE CONTENT

Using a quality moisture meter, measure the moisture content of both the sub-floor and the hardwood flooring. **Sub-floors must not exceed 10% moisture content and the difference between sub-floor and hardwood flooring cannot exceed 4%.**

If sub-floors exceed this amount, an effort should be made to locate and eliminate the source of moisture before further installation. **A moisture barrier (6 mil polyethylene film minimum) may be required in addition to the 15 lbs. asphalt felt. Asphalt felt is not considered a moisture barrier.**

STEP 6: INSTALLING THE FLOOR

Helpful Tips

- Remove flooring from several different bundles to maximize color and shade mixture.
- Stagger the ends of boards in adjacent rows.
- Installation parallel to the longest wall provides best visual effect.
- Before you begin installing the hardwood floor, cover sub-floor area with 15 lbs. asphalt felt.

Doorway and Wall Preparation

Undercut or notch-out door casings 1/16" higher than the thickness of the flooring being installed to avoid difficult scribe cuts during installation. Also remove existing base and shoe molding as well as door thresholds; each can be replaced after installation is complete.

Establish Starting Point

An exterior wall is usually the straightest and best reference line to start the installation. Direction of finished flooring should be at right angles to the floor joists whenever possible. Establish a starting line by leaving a minimum 1/2" expansion gap around all vertical obstructions. In large spans, more spacing may be needed depending on geographical area, interior climate control, and time of the year. Measure this distance from the starting wall (in at least two places) close to the starting wall's opposite corners. Mark these points and snap a working chalk line parallel to the starting wall allowing the required expansion space between the starting wall and the edge of the first row of flooring.

Installing the Floor

On the first row of flooring use 6d or 8d flooring nails to top nail surface of flooring and countersink (pre-drilling nail holes will prevent splits).

Nails should hit the joist whenever possible. To assure proper alignment of flooring, make sure the flooring along the working chalk line is straight.

Allowing for a 1/2" minimum expansion gap is critical. Wood expands and contracts with changes in humidity. Wood will buckle and/or cup if an adequate expansion space is not provided. Always allow for expansion when making end or side cuts around vertical objects.

Make sure to properly space nails 4" - 6" along the length of the board with a minimum of 2 fasteners per piece 2" - 3" from each end. Top and/or hand nail enough rows to allow adequate spacing from wall; continue installation with a floor-nailing machine.

Continue across the room until finished; remember to provide adequate spacing for expansion gap. Once completed, install molding and trim.

STEP 7: FINAL FINISH – OIL OR WAX

INITIAL OIL APPLICATION

Initial oil finishing is completed on-site after successful installation of your Bois Chamois vintage hardwood floors. Bois Chamois recommends Trip Trap products for finishing and cleaning. Initial oil finishes are applied using the three step process below:

STEP ONE: Heavy Master Oil is applied directly to the flooring using a painter's roller. Choose clear oil for natural finish or colored oil that corresponds to your Bois Chamois finish (each oil is available from your flooring dealer or directly from the manufacturer). Allow the Master Oil to penetrate deep into the surface of the wood for approximately 20 minutes. Apply more to areas where oil has soaked quickly into the wood. After Master Oil has fully saturated the flooring surface, machine polish using a white buffing pad. Be sure to wipe off all excess oil using cotton cloths if necessary.

STEP TWO: Wait 4-6 hours after Master Oil treatment. Again, using a painter's roller, apply Maintenance Oil directly to the flooring surface. Allow to penetrate for 20 minutes and machine polish using a white buffing pad until the flooring surface is dry.

STEP THREE: Clean the floor using Trip Trap Soap one week after light oil treatment, setting and protecting the heavy and light oils. Dissolve soap (follow instructions on label) in a bucket of warm water and mop flooring. Use a second bucket of clean water to rinse the mop every time it is used while cleaning the floor. Change the rinse water frequently. Use as little water as possible and do not allow mixture to "pool" on floors. Avoid walking on floors until dry, a minimum of 2 hours.

MAINTAINING OIL FINISHES

Dust mop or vacuum the floor as needed. Clean the floor using Trip Trap Soap as traffic dictates. A residential installation may require monthly cleaning whereas a commercial installation may require weekly, or even, daily cleaning. Dissolve soap (follow instructions on label) in a bucket of warm water and mop flooring. Use a second bucket of clean water to rinse the mop every time it is used while cleaning the floor. Change the rinse water frequently. Use as little water as possible and do not allow mixture to "pool" on floors. Avoid walking on floors until dry.

WAX FINISHING INSTRUCTIONS

Apply our special Camelot cream wax directly to Bois Chamois flooring using a white cotton cloth. Let wax set for 20 minutes, or until the "wet" look has disappeared. Machine buff with a red pad and apply a second coat of wax and buff using a red pad. Immediately buff again using a white pad. For additional sheen, wax may be reapplied and buffed a month after the first application.

MAINTAINING WAX FINISHES

Dust mop or vacuum as needed and clean using Trip Trap Soap when necessary. Occasional buffing with a white pad will revitalize the surface. Re-wax and buff annually or as traffic dictates.

If floor is to be covered, use a breathable material such as cardboard or rosin paper. Do not cover with plastic.

CONGRATULATIONS on your new Bois Chamois hardwood floor! If you have any further questions or comments regarding exotic hardwood flooring, please contact our technical department toll-free at 1-800-832-0898.