

INSTALLATION INSTRUCTIONS SOLID WOOD FLOORING 3/4" (19 mm) Strip and Plank

MECHANICALLY FASTENED; STAPLE, NAIL OR CLEAT
APPLICATIONS; GLUE DOWN APPLICATIONS

INSTRUCTIONS D'INSTALLATION REVÊTEMENTS DE SOL EN BOIS DUR Lames et planches de 19 mm (3/4 po)

PLANCHER FIXÉ MÉCANIQUEMENT; AGRAFÉ; CLOUÉ OU
À TASSEaux; APPLICATIONS COLLÉES

INSTRUCCIONES DE INSTALACIÓN REVESTIMIENTO DE PISO DE MADERA SÓLIDA Listones y tablas de 3/4" (19 mm)

SUJECCIÓN MECÁNICA; APLICACIÓN CON GRAPAS, CLAVOS
O TACOS; APLICACIONES CON PEGAMENTO



RECOMMENDED CLEANER: Bruce® Hardwood & Laminate Floor Cleaner
RECOMMENDED ADHESIVE: Hartco® Summit Select™ All In One Premium Adhesive
RECOMMENDED ADHESIVE REMOVER: Low Odor mineral spirits

NETTOYANT RECOMMANDÉ : Nettoyant pour revêtements de sol en bois dur et stratifiés Bruce®
ADHÉSIF RECOMMANDÉ : Adhésif de première qualité tout en un Hartco® Summit Select™
DISSOLVANT D'ADHÉSIF RECOMMANDÉ : Essence minérale à faible odeur

LIMPIADOR RECOMENDADO: Limpiador para pisos de madera dura y laminado Bruce®
ADHESIVO RECOMENDADO: Adhesivo de primera todo en un Hartco® Summit Select®
REMOVEDOR DE ADHESIVO RECOMENDADO: Alcoholes minerales de poco olor

I. GENERAL INFORMATION

Owner/Installer Responsibility

Beautiful hardwood floors are a product of nature and therefore, not perfect. Our hardwood floors are manufactured in accordance with accepted industry standards. For optimum performing hardwood flooring, carefully read and follow these installation instructions.

NOTE: These directions are based on industry standards and best practices. Failure to follow these installation instructions may result in damage to the flooring and void the floor's warranty. For complete warranty information call 1-866-243-2726 or go to www.ahfproducts.com.

- These hardwood floors were manufactured in accordance with accepted industry standards, which permit grading deficiencies not to exceed 5%. These grading deficiencies may be of a manufacturing or natural type. When flooring is ordered, 5% must be added to the actual square footage needed for cutting and grading allowance (10% for diagonal installations; 10-15% for glue down installation).
- The owner/installer has final inspection responsibility as to grade, manufacture and factory finish. Inspection of all flooring should be done prior to installation. The flooring should also be carefully examined for color, finish and quality before installing it.
- The installer must use reasonable selectivity and not use or cut off pieces with deficiencies, whatever the cause. Should an individual piece be doubtful as to grade, manufacture or factory finish, the installer should not use that piece. If material is not acceptable, do not install it and contact the seller immediately.
- Prior to installation of any hardwood flooring product, the owner/installer must determine that the job-site environment and the sub-surfaces involved meet or exceed all applicable standards. Recommendations of the construction and materials industries, as well as local codes, should be followed. These instructions recommend that the construction and subfloor be clean, dry, stiff, structurally sound and flat. The manufacturer declines any responsibility for job failure resulting from, or associated with, subfloor and substrates or job-site environmental deficiencies.
- Use of stain, filler or putty stick for touch-up and appropriate products for correcting subfloor voids is accepted as part of normal installation procedures.

ATTENTION INSTALLERS

CAUTION: WOOD DUST

Sawing, sanding and machining wood products can produce wood dust. Airborne wood dust can cause respiratory, eye and skin irritation. The International Agency for Research on Cancer (IARC) has classified wood dust as a nasal carcinogen in humans.

Precautionary Measures: If power tools are used, they should be equipped with a dust collector. If high dust levels are encountered, use an appropriate NIOSH-designated dust mask. Avoid dust contact with eye and skin.

First Aid Measures in Case of Irritation: In case of irritation, flush eyes or skin with water for at least 15 minutes.

If you have any technical or installation questions, or to request a Material Safety Data Sheet, please call 1 866 243 2726 or visit our technical website at www.hardwoodexpert.ahfproducts.com.

IMPORTANT HEALTH NOTICE FOR MINNESOTA RESIDENTS: THESE BUILDING MATERIALS EMIT FORMALDEHYDE, EYE, NOSE, AND THROAT IRRITATION; HEADACHE; NAUSEA AND A VARIETY OF ASTHMA-LIKE SYMPTOMS, INCLUDING SHORTNESS OF BREATH, HAVE BEEN REPORTED AS A RESULT OF FORMALDEHYDE EXPOSURE. ELDERLY PERSONS AND YOUNG CHILDREN, AS WELL AS ANYONE WITH A HISTORY OF ASTHMA, ALLERGIES OR LUNG PROBLEMS, MAY BE AT GREATER RISK. RESEARCH IS CONTINUING ON THE POSSIBLE LONG-TERM EFFECTS OF EXPOSURE TO FORMALDEHYDE.

REDUCED VENTILATION MAY ALLOW FORMALDEHYDE AND OTHER CONTAMINANTS TO ACCUMULATE IN THE INDOOR AIR. HIGH INDOOR TEMPERATURES AND HUMIDITY RAISE FORMALDEHYDE LEVELS. WHEN A HOME IS LOCATED IN AREAS SUBJECT TO EXTREME SUMMER TEMPERATURES, AN AIR-CONDITIONING SYSTEM CAN BE USED TO CONTROL INDOOR TEMPERATURE LEVELS. OTHER MEANS OF CONTROLLED MECHANICAL VENTILATION CAN BE USED TO REDUCE LEVELS OF FORMALDEHYDE AND OTHER INDOOR AIR CONTAMINANTS.

IF YOU HAVE ANY QUESTIONS REGARDING THE HEALTH EFFECTS OF FORMALDEHYDE, CONSULT YOUR DOCTOR OR LOCAL HEALTH DEPARTMENT.

II. PREPARATION

Storage and Handling

Solid hardwood flooring should be stored in the environment in which it is expected to perform. Deliver the materials to an environmentally controlled site. The wood subflooring materials must not exceed 12% moisture content. Using a reliable wood moisture meter, measure and document the moisture content of both the subfloor and the hardwood flooring, to determine proper moisture content. The difference between the moisture content of the wood subfloor and the wood flooring must not exceed 3% (2% for plank). Check the moisture content of multiple boards. A good representation is to check 40 boards for every 1,000 sq. ft.

Acclimate the hardwood flooring on or off the job, as necessary, to meet these moisture content requirements. Store in a dry place, being sure to provide at least a four-inch air space under cartons that are stored upon "on-grade" concrete floors. Flooring should not be delivered until the building has been enclosed, with windows and doors in place, and until cement work, plastering and all other "wet" work is completed and dry. Concrete should be at least 60 days old.

Job-Site Conditions

- Do not deliver wood flooring to any jobsite or install wood flooring until the building is fully enclosed and protected from exterior weather conditions with all windows, doors, exterior siding, soffits, roof coverings, insulation and ventilation in place.
- All concrete, masonry, framing members, drywall, paint and other "wet" work should be thoroughly dry. The wall coverings should be in place and the painting completed, except for the final coat on the base molding. When possible, delay installation of base molding until flooring installation is complete. Basements and crawl spaces must be dry and well ventilated.
- Exterior grading should be complete with surface drainage, offering a minimum drop of 3" in 10' (7.6 cm in 3.05 m), to direct flow of water away from the structure. All gutters and downspouts should be in place.
- Solid hardwood flooring may be installed on- or above- grade level. Installation of a suitable subfloor is required over concrete. Do not install in full bathrooms.
- Crawl spaces must be a minimum of 18" (46 cm) from the ground to the underside of the joists. A ground cover of 6-20 mil black polyethylene film is highly recommended as a vapor barrier with joints lapped 6" (15 cm) and sealed with moisture resistant tape. The crawl space should have perimeter venting equal to a minimum of 1.5% of the crawl space square footage. These vents should be properly located to foster cross ventilation (Figure 1). Where necessary, local regulations prevail.
- The installation site should have a consistent room temperature of 60-80° F (16-27° C) and humidity of 30-50% for 14 days prior to and during installation and until occupied.

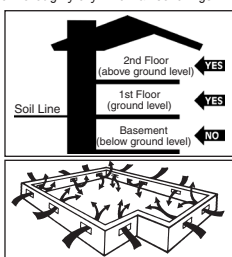


Figure 1 1

WARNING: EXISTING IN-PLACE RESILIENT FLOOR COVERING AND ASPHALTIC ADHESIVES. DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVE OR OTHER ADHESIVE.

These existing in-place products may contain asbestos fibers and/or crystalline silica.

Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard.

Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm.

Unless positively certain that the existing in-place product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern removal and disposal of material.

See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for instructions on removing all resilient floor covering structures or contact your retailer.

The floor covering or adhesive in this package does NOT contain asbestos.

Subfloor Conditions

- **CLEAN** – Subfloor must be free of wax, paint, oil, sealers, adhesives and other debris.
- **LEVEL/FLAT** – Subfloor must be within 3/16" in 10' (5 mm in 3 m) and/or 1/8" in 6' (3 mm in 2 m). Sand high areas or joints. For best results, flatten low spots with a maximum 6 layers of 15# builders felt, plywood or shims (not leveling compounds).
- **DRY** - Check and document moisture content of the subfloor with the appropriate moisture test. Install moisture retardant materials if needed or desired. (See plank installation note) In order to best prevent/reduce risk of moisture, moisture retardant materials must meet minimum perm standards of 3 - 50 ASTM D4869-88, Type I or F.S. UU-B-790a, Type I, Grade D, Style 1a. Most Asphalt saturated papers, 15# felt, 30# felt or Grade D kraft paper meet this perm rating. Install the vapor retarder over the wood subfloors prior to installing nail down flooring. Overlap the seams a minimum of 4 inches or more. (common brown kraft builder paper and red rosin generally do not qualify as vapor retarders). Concrete subfloors must be a minimum of 30 days old before testing begins.
- **STRUCTURALLY SOUND** - Any areas that are loose or squeak must be nailed or screwed. Wood panels should exhibit an adequate fastening pattern, glued/screwed or nailed as system requires, using an acceptable nailing pattern. Typical nailing: every 6" (15 cm) along bearing edges and every 12" (31 cm) along intermediate supports. Flatten any swollen edges as necessary. Replace any water-damaged, swollen or delaminated subflooring or underlayment.

NOTE: Subfloors with excessive vertical movement should be avoided. Optimum performance of hardwood floor covering products occurs when there is little horizontal or vertical movement of the subfloor. If the subfloor has excessive vertical movement (deflection) before installation of the flooring, it is likely it will do so after installation of the flooring is complete.

Subfloors with Radiant Heat

DO NOT INSTALL THIS PRODUCT OVER SUBFLOORS WITH RADIANT HEAT.

Tools & Accessories Needed

IT IS EXTREMELY IMPORTANT TO USE THE PROPER ADAPTERS, FACE PLATES, AS WELL AS STAPLES OR CLEATS. USING IMPROPER FASTENERS, MACHINES AND/OR AIR PRESSURE CAN CAUSE SEVERE DAMAGE.

For All Installation Methods

- Chalk line & chalk • Recommended hardwood flooring cleaner • Tape measure • Hammer
- Moisture meter (wood, concrete or both) • Broom • Hand saw or jamb saw • Eye protection
- Transition and wall moldings • Premium Urethane construction adhesive for floors wider than 4" (10 cm)

For Mechanically Fastened Installations

- Nail set • Electric power saw • NIOSH-designated dust mask • Electric drill and bits
- Compressor and hose w/in-line regulator for pneumatic tools
- "Blind" fastening machine for 3/4" (19 mm) flooring (see note below) • w/1-1/2" or 2" (4-5 cm) fasteners
- Pneumatic finish nailer with 1-1/2" or 2" (4-5 cm) nails • 6-8d finish nails

Use a "Blind" nailing machine designed for installing 3/4" (19 mm) hardwood flooring using staples or cleats. The nailing machine MUST HAVE a protective foot attachment to prevent edge bruising and finish damage. Sample machines include Stanley Bostitch (multiple models) with M-4 foot, Powermail (multiple models) with Nailer/Shoe, Primatex (multiple models) with Trak-Edge.

NOTE: The flooring manufacturer does not recommend nor endorse any specific brand or type of mechanical fastener.

For Glue-Down Installations

- Recommended adhesive and adhesive remover
- 1/4" x 1/2" x 3/16" (6 mm x 13 mm x 8 mm)
- V-Notch trowel (Figure 2) or other adhesive manufacturer's trowel
- 3M Scotch-Blue™ 2080 tape

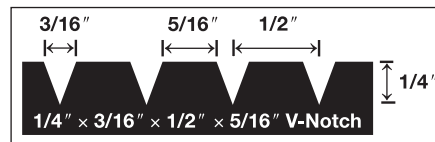


Figure 2

III. SUBFLOOR / UNDERLAYMENT REQUIREMENTS

NOTE: Solid hardwood flooring can be fastened to most existing flooring materials providing they can be penetrated with the fastener and the subfloor/underlayment materials meet or exceed the recommended subfloor/underlayment requirements. Laminated rosin paper or 15# builders felt (tar paper) acts as a moisture retarder and may be used to reduce movement caused by changes in subfloor moisture, thereby reducing cupping and warping. (This is especially helpful over crawl spaces and basements.) In addition, the use of these materials can give the flooring a more solid feeling, reduce sound transfer, prevent noise caused by minor irregularities and debris, and make it easier to slide the hardwood together across the surface of the subfloor. Kraft paper may be used to make installation easier but DOES NOT serve any other purpose.

Wood Subfloors and Underlayment

General: The wood subflooring materials should not exceed 12% moisture content. Using a reliable wood moisture meter, measure the moisture content of both the subfloor and the hardwood flooring to determine proper moisture content. The difference between the moisture content of the wood subfloor and the hardwood flooring should not exceed 3% for strip and 2% for plank flooring. When installing parallel to the floor joists it may be necessary to stiffen the subfloor system by installing an additional minimum of 3/8" (9.5 mm) approved wood underlayment. Applicable standards and recommendations of the construction and materials industries must be met or exceeded.

NOTE: As a flooring manufacturer, we are unable to evaluate each engineered joist/subfloor system. Spacing and spans, as well as their engineering methods are the responsibility of the builder, engineer, architect or consumer who is better able to evaluate the expected result based on site-related conditions and performance. The general information provided below describes common, non-engineered joist/subfloor systems. Engineered flooring joist/subfloor systems may allow for wider joist spacing and thinner subflooring materials.

Wood Structural Panel Subfloors and Underlayment

For complete warranty information call 1 866 243 2726 or visit www.ahfproducts.com.

(Non-engineered)

To act as a moisture barrier, structural panels/underlayment must be installed sealed side down. When used as a subfloor, allow 1/8" (3 mm) expansion space between each panel. If spacing is inadequate, cut in with a circular saw. Do not cut in expansion space on tongue and groove panels.

- **Plywood:** Should be minimum CDX grade (exposure 1) and meet US Voluntary Product Standard PS1-95 performance standard or Canadian performance standard CAN/CSA 0325-0-92. The preferred thickness is 3/4" (19 mm) as a subfloor [minimum 5/8" (16 mm)]. When using an underlayment panel a minimum 3/8" (9.5 mm) thickness is recommended.
- **Oriented Strand Board (OSB):** Conforming to US Voluntary Product Standard PS2-92 or Canadian performance standard CAN/CSA 0325-0-92 construction sheathing. Check the underside of the panel for codes. When used as a subfloor, the panels must be tongue and groove, and installed sealed side down. Minimum thickness to be 23/32" (18 mm) thick when used as a subfloor or 3/8" (9.5 mm) as an underlayment. Some board manufacturers' recommendations vary.

Solid Wood Subfloors

- Minimum 3/4" (19 mm) thick with a maximum width of 6" (15 cm) installed at a 45° angle to the floor joists.
- Group 1 dense softwood (Pine, Larch, Douglas Fir etc) No. 2 common, kiln dried with all board ends bearing on joists.

Concrete

(Requires Additional Subfloor)

NOTE: The use of a plywood subfloor when installing solid hardwood flooring over a concrete slab is highly recommended. In a situation where you must direct glue to concrete, review the adhesive manufacturer's recommendation for proper application, proper adhesive and correct trowel notch and spread rate, as well as their warranty coverage (some adhesive manufacturers have had substantial success with direct glue applications (no plywood subfloor) using a variety of different adhesives and moisture retardant systems).

Solid hardwood flooring makes it impossible to guarantee perfectly straight pieces, as natural curvature characteristics are inherent to the product and are NOT considered defects. Therefore, when installing using the glue down installation system, plan for a higher waste factor (10%-15%).

Concrete Moisture Tests

All concrete subfloors should be tested, and results documented, for moisture content. Visual checks may not be reliable. Test several areas, especially near exterior walls and walls containing plumbing. Acceptable test methods for subfloor moisture content include:

- **Tramex Concrete Moisture Encounter Meter:** (Figure 3) Moisture readings should not exceed 4.5 on the upper scale. (Figure 3 shows an unacceptable reading of over 4.5). Concrete Moisture Meters give qualitative reading results-not quantitative ones. These results are a quick way to determine if further testing is required.

NOTE: To ensure appropriate moisture content, the following tests should be conducted in all residential/commercial applications. (Either or both tests is/are acceptable).

- **Calcium Chloride Test (ASTM F 1869):** The maximum moisture transfer must not exceed 3 lbs./1000 ft.² in 24 hrs. with this test.
- **RH Levels in Concrete Using In-situ Probes (ASTM F 2170)** should not exceed 75%.

"DRY" CONCRETE, AS DEFINED BY THESE TESTS CAN BE WET AT OTHER TIMES OF THE YEAR. THESE TESTS DO NOT GUARANTEE A DRY SLAB.

- **Moisture Retardant System:** If excessive moisture is present or anticipated, use a Moisture Retardant System. Armstrong Summit Premium Adhesive may be used as a moisture retardant system to reduce vapor intrusion. **Armstrong Summit adhesive:** Apply the adhesive using the Summit trowel that is included in every pail or other adhesive manufacturer's trowel. Flooring can be installed immediately after applying the adhesive. No moisture test is required.



Figure 3

Wood/Concrete Subfloor Systems

Fastened to concrete:

Concrete must be of high compressive strength, 3000 PSI or better. Install a suitable moisture retardant followed by a plywood subfloor with a minimum thickness of 3/4" (19 mm). Allow 1/2" (13 mm) expansion space around all vertical objects and 1/8" (3 mm) between all flooring panels. In general, smaller panels [less than 4' x 8' (1.2 m x 2.4 m)] oriented at 45 degrees (preferred) offer better results. The panel must be properly attached to the subfloor using a minimum of one fastener per square foot, and more if necessary. Use pneumatic or powder actuated fasteners; do not hand nail the subfloor with concrete nails. Install a moisture retardant barrier with joints lapped 6" (15 cm) and begin installation of flooring using 1-1/2" (4 cm) fasteners.

Floating subfloor:

Install a suitable moisture retardant followed by a plywood subfloor with a minimum of 3/8" (9.5mm) [1/2" (13 mm) preferred]. Allow 1/2" (13 mm) expansion space around all vertical objects and 1/8" (3 mm) between all flooring panels. Install a second layer of plywood, the same thickness, at a right angle to the previous panels, offsetting the joints 2' (61 cm). Staple together with staples that will not penetrate the first layer of the subfloor. The staples should have a crown width of 3/8" (9.5 mm) or more. Install a moisture retardant barrier with joints lapped 6" (15 cm) and begin installation of flooring using 1-1/2" (4 cm) fasteners.

Screeds/sleepers:

NOTE: Solid hardwood flooring 4" (10 cm) or more in width cannot be installed directly to screeds.

Screeds should be installed 9" (23 cm) apart, in rivers of adhesive, at right angles to the flooring to be installed. Do not begin installation until all adhesives are properly cured. Install moisture retardant over the screeds prior to installation of the flooring.

IV. INSTALLING THE FLOOR

General Installation Tips

- Install the moisture retardant (if used) parallel to the flooring. Overlap the rows 6" (15 cm). Overlap (top) should be on the same side as the groove of the flooring so that the hardwood will slide smoothly into place. Staple the moisture retardant material as necessary to prevent excessive movement.
- Use pieces of flooring from several different cartons at the same time to ensure good color and shade mixture and variation.
- When possible, preselect and set aside boards that blend best with all floor mounted moldings to ensure a uniform final appearance. Install these boards adjoining the moldings.
- Be attentive to staggering the ends of boards at least 4"-6" (10-15 cm), when possible, in adjacent rows (Figure 4). This staggering pattern will help ensure a more favorable overall appearance of the floor.
- When installing products of uniform length, begin the rows with starter boards cut to various lengths. Avoid staggering the rows uniformly to prevent stair-stepping. Boards cut from the opposite end of the row may be used for the next starter boards.
- Large spans exceeding 20' (6 m) in hardwood flooring width, in areas of high humidity, may require the addition of internal or field expansion. This expansion can be accomplished by using spacers, such as small washers, every 10-20 rows inserted above the tongue. Remove the spacers after several adjoining rows have been fastened. Do not leave spacers in for more than two hours.
- Always allow a minimum 3/4" (19 mm) expansion around all vertical obstructions.
- Always use a protective foot on the fastening machine to prevent mallet damage and edge bruising.

General Information for "Blind Fastening" Machines

- Avoid striking the edge of prefinished products with the fastener's mallet, as Edge crushing can occur, causing unsightly cracks and splinters. Use a protective foot attachment to prevent edge bruising and finish damage.
- Improper adapter plates and air pressure settings can cause severe damage to the hardwood flooring and reduce performance (Figure 5). Always use an in-line regulator to control air pressure to the machine. Set pressure at 70-75 PSI to begin with and adjust until proper fastener setting occurs.

NOTE: SPECIAL INSTRUCTIONS FOR PLANK FLOORING

Seasonal distortion (shrinkage/cupping) in wide width flooring (4" (10 cm) and over) may be reduced by gluing the flooring to the subfloor, in addition to the use of mechanical fasteners. Reminder: adhesives used for this purpose will not perform their function when used in conjunction with a moisture retardant.

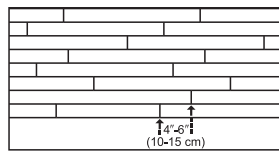


Figure 4 Preferred Alignment

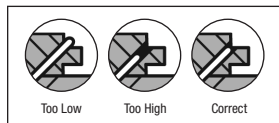


Figure 5

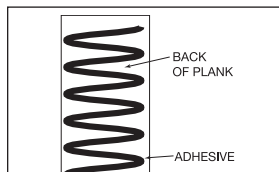


Figure 6

Glue assisted applications will not be satisfactory without direct contact with the subfloor. The glue should be a premium grade urethane construction adhesive applied in a serpentine pattern to the back of the hardwood plank in a 1/4" bead as noted in Figure 6.

STEP 1: Doorway and Wall Preparation

(All Installation Methods)

- Undercut door casings and jambs. Remove any existing base, shoe mold or doorway thresholds. These items can be replaced after installation. All door casings and jambs should be undercut to avoid difficult scrobe cuts (Figure 7).

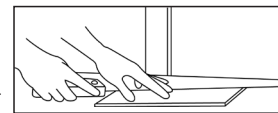


Figure 7

STEP 2: Establish a Starting Point

(All Installation Methods)

- For best visual results, install flooring parallel to the longest wall; however, the floor should always be installed perpendicular to the flooring joists unless subfloor has been reinforced to reduce subfloor sagging.
- When possible, begin layout or installation from the straightest wall (generally an outside wall).
- In at least two places at least 18" (46 cm) from the corner, measure out equal distance from the starting wall (Figure 8) the face width of the starter board plus 1" (2.5 cm) (do not include the width of the tongue in this measurement). Mark these points and snap a chalk line through them. This measurement allows for the required 3/4" (19 mm) expansion and the width of the tongue.

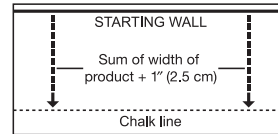


Figure 8

STEP 3: Installing First & Second Rows – Starting from Wall

(Mechanically Fastened/Staple-Down Installations)

- Use the longest, straightest boards available for the first two rows. For random and alternate width products, use the widest plank for the first row. Align tongue of first row on chalk line. The groove should be facing the starting wall.
- Use a pneumatic finish nailer to face-nail the groove side 1/2" (13 mm) from the edge at 6" (15 cm) intervals and 1"-3" (2.5-7.6 cm) from each end. Then, blind nail using a finishing gun held at a 45° angle. Nail down through the nailing "pocket" on top of the tongue every 6"-8" (15-20 cm) (Figure 9).
- If using finish nails, pre-drill the nail holes with a 1/32" (1.7 mm) bit approximately 1/2" (12.7 mm) from back (groove) edge, 1"-3" (2.5-7.6 cm) from each end, and at 6" (15 cm) intervals. Pre-drill at the same intervals at a 45° angle down through the nailing "pocket" on top of the tongue (Figure 9). Face-nail the groove side where pre-drilled. When complete, blind-nail at a 45° angle through the tongue of the first row. Fasten using 6 or 8d finish nails. Countersink nails to ensure flush engagement of the groove. Avoid bruising the hardwood by using a nail set to countersink the nails.
- Continue blind-nailing using this method with the following rows until blind nailer can be used.

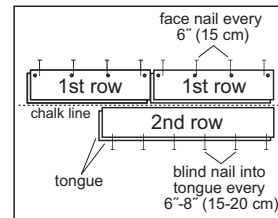


Figure 9

STEP 2-3 Alternative: Installing First & Second Rows – Starting from Center of Room

(Mechanically Fastened/Staple-Down Installations)

- Snap a chalk line down the center of the room.
- Install a "sacrificial row" that extends the entire length of the room on the centerline.
- Install three rows of flooring.
- Remove the sacrificial row and insert wood glue in the groove followed by a slip tongue (spline) in the exposed groove. Always glue and nail the slip tongue in place. Installation can now continue from the center in both directions. NOTE: Do not reuse/reinstall the boards from the sacrificial row.

STEP 4: Dry Lay (Racking) the Floor

(Mechanically Fastened/Staple-Down Installations)

- "Dry" lay (rack) materials to cover approximately 2/3 of the room. Begin dry laying (racking) approximately 6" (15 cm) from the edge of the previously installed rows. Avoid pulling boards too tightly together on the sides, as they must move freely when fastening begins.
- Do not cut final board until row has been installed. Cutting the board in advance may result in a board that is too short.
- Visually inspect flooring, setting aside boards that need to have natural character flaws cut out. Use these boards for the starting and finishing rows only after objectionable characteristics have been removed.

Fastener Schedule

Width of flooring	1-1/2" to 3-1/2" (4-9 cm)	4" (10 cm) and over
Maximum spacing	10"-12" (25-30 cm)	8"-10" (20-25 cm)
Preferred spacing	8"-10" (20-25 cm)	6"-8" (15-20 cm)

Figure 10

STEP 5: Installing the Floor

- Use the blind nailer to fasten a sacrificial board to the floor. Check for surface damage, air pressure setting, tongue damage, before proceeding. Make all adjustments and corrections before installation begins. Once proper adjustments have been made, remove and destroy the board.
- Begin installation with several rows at a time. Use the fastener schedule (Figure 10) for proper spacing based on board width. Fasten each board with a minimum of two fasteners 1"-3" (2.5-7.6 cm) from the ends. To ensure a more favorable overall appearance, end-joints of adjacent rows should be staggered a minimum of 4"-6" (10-15 cm) when possible.
- The last 1-2 rows will need to be face-nailed where clearance does not permit blind nailing with the stapler or brad nailer. Pre-drill and face-nail on the tongue side following the nailing pattern used for the first row.
- Rip final row to fit and face-nail. If the final row is less than 1" (2.5 cm) in width, it should first be glued to the previous UNINSTALLED row and the two joined units should be face nailed as one.

General Information for Glue-Down Applications

- Maximum adhesive working times: When not in use, keep the adhesive container tightly closed to prevent thickening. Thickening will cause difficulty in spreading the adhesive. Summit – 50 minutes.
- Open times and curing times of ALL adhesives vary depending upon subfloor porosity, air movement, humidity and room temperature. Adjust the amount of adhesive spread on the subfloor accordingly. The adhesive should not be applied if subfloor or room temperature is below 60°F (16°C). WORKING TIME WILL VARY DEPENDING ON JOB SITE CONDITIONS.
- Hold trowel at a 45° angle (Figure 11) firmly against the subfloor to obtain a 50-60 ft.² (4-5.5 m²) per gallon spread rate (30-35 ft.² per gallon for Summit spread with the included Summit All-In-One trowel) or other adhesive manufacturer's trowel. The trowel will leave ridges of adhesive and very little adhesive between the ridges. This method will allow you to still see the chalk lines between the ridges and provide the recommended spread rate. For additional application instructions, follow the recommendations on the adhesive container.
- An anchor row may be set and secured to the subfloor to provide a stationary point to be pushed against so flooring does not move during the installation.
- Ensure proper ventilation within the room to mitigate fumes. An electric fan is helpful.
- Rolling is not required, but if desired, do not do so until the adhesive has cured for 2 hours.

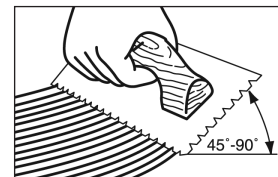


Figure 11

NOTE: DO NOT INSTALL FLOORING USING RUBBER MALLETS. STRIKING THE SURFACE WITH A RUBBER Mallet MAY "BURN" THE FINISH CAUSING IRREPAIRABLE DAMAGE.

STEP 3: Spread the Adhesive

(Glue-Down Installations)

- Spread sufficient amounts of the recommended adhesive with the recommended trowel (Figure 2) or other adhesive manufacturer's trowel in an area that can be covered in 60 minutes (see adhesive information).
- If necessary, nail a sacrificial row with 1" (2.5 cm) nails on the dry side of the chalk line to help hold the first row in place.

NOTE: Avoid kneeling or installing on the surface of the flooring. If necessary, distribute weight using a kneeler board.

STEP 4: Installing the Floor

(Glue-Down Installations)

(Figure 12a-12d)

- Use the longest, straightest boards available for the first 2 rows. For random and alternate width products, use the widest plank for the first row. The first row of planks should be installed with the edge of the groove lined up on the chalk line. The tongue should be facing the starting wall. The first row must be aligned and seated in the adhesive, as all additional rows will be pushed back to this original row. Remove tongue to allow for expansion space, if necessary, on the row adjoining the wall.
- When installing pieces, engage the end-joint first, as close to the side (long) tongue and groove as possible, then slide together tightly to engage the side (long) joint tongue and groove. To avoid adhesive bleed-through and memory pull-back, avoid (as much as possible) sliding pieces through the adhesive when placing them into position.

STEP 5: Installing the Floor

(Glue-Down Installations)

- During the installation occasionally remove a piece of flooring from the subfloor and inspect the back for proper adhesive transfer. Adequate adhesive transfer is necessary to ensure sufficient holding strength.
- If the adhesive skins over and fails to transfer, remove and spread new adhesive to achieve proper bonding.

NOTE: Clean adhesive from the surface of the floor frequently, using the recommended adhesive cleaner. Do not use 3M Scotch-Blue™ 2080 Tape before adhesive is removed from the surface. Use clean towels, changed frequently, to prevent haze and adhesive residue.

- Check for a tight fit between all edges and ends of each plank. End-joints of adjacent rows should be staggered 4"-6" (10-15 cm) when possible, to ensure a more favorable overall appearance (Figure 4).
- It may be necessary to align the product with a cut-off piece of scrap as shown in (Figure 13 - Keep scrap angle low to avoid edge damage).
- To eliminate minor shifting or gapping of product during installation, use 3M Scotch-Blue™ 2080 Tape to hold the planks together. After installation is complete, remove all of the 3M Scotch-Blue™ 2080 Tape from the surface of the newly installed flooring. Do not let the tape remain on the flooring longer than 24 hours. Avoid the use of masking or duct tape, which leaves an adhesive residue and may damage the finish.
- If necessary, use weights to flatten boards with bows until adhesive cures, in order to prevent hollow spots. Boards that cannot be flattened should be cut in length to reduce the bow or should be not used.
- Be sure not to spread adhesive too far ahead of your work area (Figure 12d).
- Complete the installation using this same technique for the remainder of the floor.
- Avoid heavy foot traffic on the floor for at least 24 hours. Lift the furniture or fixtures back into place after 24 hours.

STEP 6: Complete the Installation

- Remove all tape and clean the floor with the recommended hardwood flooring cleaner.
- Install or re-install any transition pieces, reducer strips, T-moldings, thresholds, bases and/or quarter round moldings that may be needed. These products are available pre-finished to blend with your flooring (see below). Nail moldings into the wall, not the floor.
- Inspect the floor, filling all minor gaps with the appropriate blended filler.

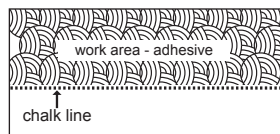


Figure 12a

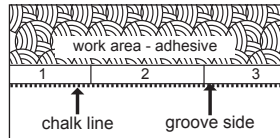


Figure 12b

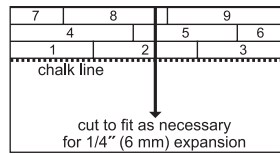


Figure 12c

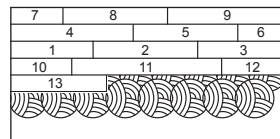


Figure 12d

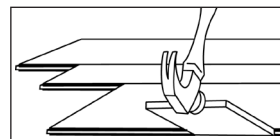


Figure 13

- If the floor is to be covered, use a breathable material such as cardboard. Do not cover with plastic.
- Installers (that are not owners) should leave warranty and floor care information with the owner and advise them of the product name and code number of the flooring they purchased.
- To prevent surface damage, avoid rolling heavy furniture and appliances on the floor; use plywood, hardboard or appliance lifts if necessary. Use protective castors/castor cups or felt pads on the legs of furniture to prevent damage to the flooring.

V. TRANSITION AND WALL MOLDINGS



- Reducer Strip:** A teardrop shaped molding used around fireplaces, doorways, as a room divider, or as a transition between hardwood flooring and adjacent thinner floor coverings. Fasten down with adhesive, small nails or double-faced tape.
- Threshold:** A molding undercut for use against sliding door tracks, fireplaces, carpet, ceramic tile, or existing thresholds to allow for expansion space and to provide a smooth transition in height difference. Fasten to subfloor with adhesive and/or nails through the heel. Pre-drill nail holes to prevent splitting.
- Stair Nosing:** A molding undercut for use as a stair landings trim, elevated floor perimeters, and stair steps. Fasten down firmly with adhesive and nails or screws. Pre-drill nail holes to prevent splitting.
- Quarter Round:** A molding used to cover expansion space next to baseboards, case goods, and stair steps. Pre-drill and nail to the vertical surface, not into the floor.
- Combination Base and Shoe:** A molding used when a base is desired. Used to cover expansion space between the floor and the wall. Pre-drill and nail into the wall, not the floor.
- T-Molding:** A molding used as a transition piece from one rigid flooring to another of similar height or to gain expansion spaces. Fasten at the heel in the center of the molding. Additional rigid support may need to be added to the heel of the molding dependent upon the thickness of the goods covered. Do not use this molding as a transition to carpet.

INSTALLERS - ADVISE YOUR CUSTOMER OF THE FOLLOWING FLOORING OWNERS - BE ADVISED OF THE FOLLOWING

Seasons: Heating and Non-heating

Recognizing that hardwood floor dimensions will be slightly affected by varying levels of humidity within the structure, care should be taken to control humidity levels and maintain them in the 30-50% range. To protect the flooring and provide lasting satisfaction, the manufacturer's recommendations are below.

- Heating Season (Dry):** A humidifier is recommended to prevent excessive shrinkage in hardwood floors due to low humidity levels. Wood stoves and electric heat tend to create very dry conditions.
- Non-Heating Season (Humid, Wet):** Proper humidity levels can be maintained by use of an air conditioner, dehumidifier, or by turning on your heating system periodically during the summer months. Avoid excessive exposure to water from tracking during periods of inclement weather. Do not obstruct in any way the expansion joint around the perimeter of your floor.
- Damage caused by failing to maintain the proper humidity levels is not manufacturing related and will void the floor's warranty.**

NOTE: Final inspection by the end-user should occur from a standing position.

Floor Repair

Minor damage can be repaired with a Bruce touch-up kit or filler. Major damage will require board replacement, which can be done by a professional floor installer.

I. INFORMATION D'ORDRE GÉNÉRAL

Responsabilité du propriétaire/installateur

Les beaux revêtements de sol en bois dur sont des produits naturels et sont donc imparfaits. Nos planchers de bois dur sont fabriqués conformément aux normes reconnues de l'industrie. Pour un plancher de bois dur aux performances optimales, lisez attentivement et suivez les instructions d'installation suivantes.

REMARQUE : Ces directives sont basées sur les normes de l'industrie et les meilleures pratiques. Le non-respect de ces instructions d'installation peut endommager le sol et annuler la garantie du revêtement de sol. Pour obtenir des informations complètes sur la garantie, composez le 1-866-243-2726 ou rendez-vous sur www.ahfproducts.com.

- Ces revêtements de sol en bois dur sont fabriqués conformément aux normes établies dans l'industrie, autorisant une tolérance aux défauts qui ne doit pas dépasser 5%. Il peut s'agir d'un défaut de fabrication ou d'un défaut naturel. Lors de la commande du revêtement de sol, vous devez ajouter 5% à la surface réelle nécessaire pour tenir compte des coupes et des défauts (10% pour la pose en diagonale; 10 à 15% pour l'installation collée).
- Le propriétaire/poseur a la responsabilité d'exécuter l'inspection finale relative à la catégorie, à la fabrication et à la finition effectuée à l'usine. Une inspection de tout le revêtement de sol devrait être exécutée avant la pose. Le revêtement de sol doit également être soigneusement examiné pour la couleur, la finition et la qualité avant de l'installer.
- Le poseur doit effectuer la sélection de façon raisonnable et rejeter ou couper les morceaux de planche qui ont des défauts, quelle qu'en soit la cause. Si le poseur doute de la classe, de la fabrication ou de la finition d'une section de planche, il ne devrait pas l'utiliser. Si le produit n'est pas acceptable, ne le posez pas et contactez immédiatement le vendeur.
- Avant de poser tout revêtement de sol en bois dur, le propriétaire/poseur doit s'assurer que le site du chantier et les sous-planchers visés par la pose sont conformes à toutes les normes applicables ou les dépassant. Les recommandations des industries de la construction et des matériaux doivent être observées. Selon ces recommandations, la construction et le plancher brut doivent être propres, secs, structurellement sains et plats. Le fabricant n'assume aucune responsabilité quant aux défauts de la pose liés à des défaillances environnementales du plancher brut et des supports ou du lieu de travail.
- Les retouches effectuées à l'aide de teinture, de bouche-pores ou de bâton de mastic et autres produits appropriés pour corriger les aspérités des planchers bruts font partie des procédures de pose normales.

AVERTISSEMENT ADRESSÉ AUX POSEURS

ATTENTION : POUSSIÈRE DE BOIS

Le fait de scier, poncer et usiner les produits de bois peut produire de la poussière. La poussière de bois en suspension dans l'air peut provoquer une irritation des voies respiratoires, des yeux et de la peau. Le Centre International de Recherche sur le Cancer (CIRC) a classifié la poussière de bois en tant qu'agent cancérigène nasal chez les humains.

Précautions : Les outils électriques utilisés devraient être munis d'un collecteur de poussière. En cas de niveaux de poussière élevés, utilisez le masque antipoussières homologué par le NIOSH. Évitez tout contact de la poussière avec les yeux et la peau.

Premiers soins en cas d'irritation : En cas d'irritation, rincez la peau ou les yeux avec de l'eau pendant au moins 15 minutes.

Pour obtenir une copie de la fiche signalétique de ce produit ou pour toute question technique ou concernant la pose, prière de composer le 1 866 243 2726 ou visitez www.hardwoodexpert.ahfproducts.com, notre site Web technique.

IMPORTANT AVIS MÉDICAL À L'ATTENTION DES RÉSIDENTS DU MINNESOTA : LES MATÉRIEAUX DE CONSTRUCTION ÉMETTENT DU FORMALDÉHYDE. DES PROBLÈMES D'IRRITATION DES YEUX, DU NEZ, DE LA GORGE, AINSI QUE DES MAUX DE TÊTE, DES NAUSEES ET TOUTE UNE VARIÉTÉ DE SYMPTÔMES ASTHMATIQUES, Y COMPRIS DES ESSOUFFLEMENTS, ONT ÉTÉ SIGNALÉS APRÈS UNE EXPOSITION AU FORMALDÉHYDE. LES PERSONNES ÂGÉES ET LES JEUNES ENFANTS, AINSI QUE TOUS CEUX QUI ONT DES PROBLÈMES D'ASTHME, D'ALLERGIES OU PULMONAIRES POURRAIENT ÊTRE EXPOSÉS À PLUS DE RISQUES. LA RECHERCHE SE POURSUIT SUR LES EFFETS POSSIBLES À LONG TERME D'UNE EXPOSITION AU FORMALDÉHYDE.

UNE VENTILATION INSUFFISANTE PEUT ENTRAÎNER UNE ACCUMULATION DE FORMALDÉHYDE ET AUTRES CONTAMINANTS DANS L'AIR INTÉRIEUR. DES TEMPÉRATURES ET UN TAUX D'HUMIDITÉ INTÉRIEURES ÉLEVÉS AUGMENTENT LES NIVEAUX DE FORMALDÉHYDE. SI LA RÉSIDENCE EST SITUÉE DANS UNE RÉGION OÙ LES TEMPÉRATURES ESTIVALES SONT EXTRÊMES, UN SYSTÈME DE CLIMATISATION PEUT ÊTRE UTILISÉ POUR LES RÉGULER. D'AUTRES MOYENS DE CONTRÔLE MÉCANIQUES PEUVENT ÊTRE UTILISÉS POUR RÉDUIRE LES NIVEAUX DE FORMALDÉHYDE ET AUTRES CONTAMINANTS DE L'AIR INTÉRIEUR.

POUR TOUTES QUESTIONS RELATIVES AUX EFFETS DU FORMALDÉHYDE SUR LA SANTÉ, CONSULTEZ VOTRE MÉDECIN OU LE MINISTÈRE DE LA SANTÉ.

II. PRÉPARATION

Entreposage et manipulation

Les produits en bois dur massif devraient être conservés dans l'environnement dans lequel ils seront installés. Livrez les matériaux dans un site avec environnement contrôlé. La teneur en humidité des matériaux de plancher brut ne doit pas dépasser 12%. À l'aide d'un humidimètre fiable approprié pour le bois, mesurez et notez la teneur en humidité du plancher brut et du revêtement de sol en bois dur. La différence entre la teneur en humidité du plancher brut en bois et du revêtement de sol en bois ne doit pas dépasser 3% (2% pour les planches). Vérifiez la teneur en humidité de plusieurs planches. Une bonne représentation consiste à vérifier 40 planches pour chaque 1 000 pieds carrés.

Acclimater le revêtement de sol en bois dur sur ou hors du chantier, comme nécessaire, pour rencontrer les conditions de teneur en humidité. Entrepochez-le dans un endroit sec en assurant une hauteur libre de 10 cm (4 po) au moins sous les cartons entrepochez sur les planchers en béton « au niveau » du sol. Le revêtement de sol ne doit pas être livré tant que l'édifice n'a pas été fermé par la mise en place des portes et des fenêtres, et que la pose du ciment, du plâtre et autres travaux favorisant l'humidité ne sont pas terminés et complètement secs. Le béton doit avoir été posé depuis 60 jours au moins.

Conditions du chantier

- Ne livrez pas de plancher de bois sur un chantier ou n'installez pas de plancher de bois tant que le bâtiment n'est pas entièrement clos et protégé des intempéries extérieures avec toutes les fenêtres, portes, revêtement extérieur, soffites, toiture, isolation et ventilation en place.
- La pose du ciment, du plâtre et autres travaux favorisant l'humidité doivent être terminés et complètement secs. Les revêtements muraux doivent être posés et les travaux de peinture terminés, sauf la dernière couche sur les plinthes. Autant que possible, différez la pose des plinthes jusqu'à ce que la pose du revêtement de sol soit complètement terminée. Les sous-sols et les vides sanitaires doivent être secs et bien aérés.
- Le terrassement extérieur doit être terminé et drainé en surface au moyen d'un dénivellement minimum de 7,6 cm sur 3,05 m (3 po sur 10 pi) pour diriger l'écoulement de l'eau à l'écart du bâtiment. Toutes les gouttières et descentes d'eau doivent être en place.
- Le revêtement de sol en bois dur massif peut être posé au niveau ou au-dessus du niveau du sol. L'installation d'un plancher brut adéquat est requis sur le béton. Il ne doit pas être installé dans les salles de bain complète.

- Finissez la pose en utilisant la même technique pour le restant du revêtement de sol.
- Limitez le passage sur le revêtement de sol pendant un minimum de 24 heures. Remettez les meubles ou les accessoires en place après 24 heures.

ÉTAPE 6 : Compléter l'installation

- Retirez le ruban et nettoyez avec le produit nettoyant recommandé pour revêtement de sol en bois dur.
- Posez ou remettez en place les pièces de transition, les bandes de réduction, les moulures en « T », les seuils, les plinthes et/ou les quarts-de-rond qui pourraient être nécessaires. Ces produits sont offerts préfinis pour se fondre dans votre plancher (voir ci-dessous). Clouez les moulures au mur, pas au sol.
- Inspectez le revêtement de sol en enduisant tous les écarts mineurs avec la bouche-pores recommandé.
- Si le revêtement de sol doit être recouvert, utilisez un matériau perméable à l'air tel qu'un carton. Ne le recouvrez pas de plastique.
- Les installateurs (qui ne sont pas propriétaires) doivent laisser au propriétaire des informations sur la garantie et l'entretien des sols et les informer du nom du produit et du numéro de code du revêtement de sol qu'ils ont acheté.
- Pour protéger contre l'endommagement de la surface, évitez de faire rouler des meubles et des appareils ménagers pesants sur le sol. Au besoin, utilisez du contreplaqué, du carton ou des dispositifs de levage d'appareil ménager. Utilisez des roulettes et des coupes repose-roulette ou des patins en feutre sous les pieds des meubles afin d'éviter d'endommager le revêtement de sol.

V. MOULURES DE RACCORD ET PLINTHES



Bande de réduction **Seuil** **Nez de marche** **Quart-de-rond** **Moulure en « T »**

- **Bande de réduction** : Moulure en forme de larme placée autour des cheminées ou des portes ou utilisée pour séparer des pièces ou effectuer la transition entre le revêtement de sol en bois dur et un revêtement de sol adjacent plus mince. Fixez avec de l'adhésif, de petits clous ou du ruban double face.
- **Seuil** : Moulure à encoche placée contre les glissières des portes coulissantes, les cheminées, la moquette ou les carreaux de céramique ou contre un seuil existant afin d'assurer un espace pour la dilatation et une transition en douceur entre deux hauteurs différentes. Fixez au plancher brut avec de l'adhésif ou de petits clous enfoncés dans le talon. Percez des avant-trous pour les clous afin d'éviter les fendillements.
- **Nez de marche** : Moulure à encoche placée contre les paliers d'escalier, les pourtours de planchers surélevés et les marches. Fixez solidement avec de l'adhésif, des clous ou des vis. Percez des avant-trous pour les clous afin d'éviter les fendillements.
- **Quart-de-rond** : Moulure utilisée pour recouvrir les espaces réservés à la dilatation le long des plinthes, des meubles de rangement et des marches d'escalier. Percez les avant-trous et clouez à la surface verticale, pas au plancher.
- **Combinaison de plinthe et de sabot** : Moulure utilisée comme plinthe. Sert à recouvrir l'espace prévu pour la dilatation entre le plancher et le mur. Percez les avant-trous et clouez la moulure au mur, pas au sol.
- **Moulure en « T »** : Moulure utilisée pour effectuer la transition entre un revêtement de sol rigide et un autre type de revêtement de hauteur différente ou pour dissimuler l'espace prévu pour la dilatation. Se fixe au talon, au centre de la moulure. Selon l'épaisseur des éléments à recouvrir, il pourrait se révéler nécessaire d'ajouter un autre support rigide au talon. N'utilisez pas cette moulure pour effectuer une transition entre le plancher et de la moquette.

INSTALLATEURS – VEUILLEZ AVISER VOS CLIENTS DE CE QUI SUIT PROPRIÉTAIRES DE REVÊTEMENTS DE SOL - SOYEZ AVISÉ DES POINTS SUIVANTS

Changements saisonniers : chauffage et arrêt du chauffage

Les dimensions du plancher de bois dur seront légèrement affectées par les différents niveaux d'humidité dans le bâtiment, il faut prendre soin de contrôler les niveaux d'humidité et de les maintenir dans la plage de 30 à 50 %. Pour protéger le revêtement de sol et assurer une satisfaction durable, les recommandations du fabricant sont ci-dessous.

- **Saison avec chauffage (sécheresse)** : L'utilisation d'un humidificateur est recommandée pour empêcher toute rétraction excessive des revêtements de sol en bois dur due à un faible taux d'humidité. La chaleur produite par les poêles à bois et le chauffage électrique tend à favoriser une grande sécheresse.
- **Saison sans chauffage (humidité)** : Il est possible de maintenir un taux d'humidité adéquat en utilisant un système de climatisation ou un déshumidificateur ou en mettant régulièrement le chauffage en marche pendant les mois d'été. Évitez d'exposer le revêtement de sol à l'eau laissée par les traces de pas pendant les périodes d'intempéries. Veillez à ne pas obstruer, de quelque façon que ce soit, le joint de dilatation sur le pourtour du revêtement de sol.
- **Les dommages causés par le non-respect des niveaux d'humidité appropriés ne sont pas liés à la fabrication et annulent la garantie du sol.**

REMARQUE : L'utilisateur final devrait effectuer l'inspection finale en position debout.

REPARATION DU PLANCHER

Les dommages mineurs peuvent être réparés à l'aide du nécessaire pour retouches ou des bâtons de remplissage Bruce. Pour réparer des dommages majeurs, le remplacement de la planche sera nécessaire et peut être effectué par un poseur de revêtement de sol qualifié.

I. INFORMACIÓN GENERAL

Responsabilidad del propietario/instalador

Los hermosos pisos de madera dura son un producto de la naturaleza y, por lo tanto, no son perfectos. Nuestros pisos de madera dura son fabricados de acuerdo con normas aceptadas por la industria. Para un óptimo desempeño del revestimiento de piso de madera dura, lea atentamente y siga estas instrucciones de instalación.

NOTA: Estas instrucciones se basan en las normas de la industria y las mejores prácticas. Si no se observan estas instrucciones de instalación puede ocurrir daño al revestimiento de piso e invalidar la garantía del piso. Para la información completa sobre la garantía, llame al 1-866-243 2726 o visite www.ahfproducts.com.

- Nuestros pisos de madera dura se fabricaron de acuerdo con normas aceptadas por la industria, las cuales permiten que las deficiencias de la clasificación no excedan de 5%. Estas deficiencias de la clasificación pueden ser de tipo natural o de fabricación. Cuando efectúe el pedido del revestimiento de piso, deberá añadir 5% al área real que necesita en pies cuadrados para cubrir la tolerancia de los cortes y la clasificación (10%-15% para instalaciones diagonales con pegamento).
- El propietario/instalador tiene la responsabilidad de la inspección final en cuanto a la clasificación, la fabricación y el acabado de fábrica. Se debe inspeccionar todo el material de revestimiento de piso antes de la instalación. El revestimiento de piso debe ser examinado atentamente en relación con el color, el acabado y la calidad antes de la instalación.
- El instalador deberá ejercer una selectividad razonable y apartar o cortar las piezas que tengan deficiencias por cualquier motivo. Si se presenta alguna duda con respecto a una pieza en particular por la clasificación, la fabricación o el acabado de fábrica, el instalador no debe usar esa pieza. Si el material no es aceptable, no lo instale y comuníquese de inmediato con el vendedor.
- Antes de la instalación de cualquier producto de revestimiento de piso de madera dura, el propietario/instalador deberá determinar que el ambiente de la obra y el subsuelo cumplan o excedan todas las normas pertinentes. Se debe cumplir con las recomendaciones de las industrias de la construcción y materiales, así como con la normativa local. Estas instrucciones recomiendan que el área de la construcción y el contrapiso estén limpios, secos, rígidos, estructuralmente firmes y planos. El fabricante declina cualquier responsabilidad por fallas del trabajo que resulten o estén relacionadas con el contrapiso y los sustratos o con las deficiencias ambientales del sitio de trabajo.
- Se considera aceptable como parte de los procedimientos de una instalación normal el uso de tinte, compuesto de relleno o masilla para retocar y los productos adecuados para corregir imperfecciones del contrapiso.

ATENCIÓN INSTALADORES

PRECAUCIÓN: POLVO DE MADERA

Al aserrar, lijar o labrar productos de madera, se puede producir polvo de madera. El polvo de madera suspendido en el aire puede provocar irritación en el sistema respiratorio, los ojos y la piel. La Agencia Internacional de Investigaciones sobre el Cáncer (International Agency for Research on Cancer, IARC) ha clasificado el polvo de madera como un cancerígeno nasal en los seres humanos.

Medidas de precaución: Si se usan herramientas eléctricas, estas deberán estar equipadas con un colector de polvo. Si se detectan altos niveles de polvo, se deberá usar una máscara adecuada contra el polvo diseñada por NIOSH. Evite el contacto del polvo con los ojos y la piel.

Medidas de primeros auxilios en caso de irritación: En caso de irritación, enjuague los ojos o la piel con agua durante 15 minutos como mínimo.

Si tiene preguntas técnicas o sobre instalación o para solicitar una Hoja de Datos de Seguridad, llame al 1 866 243 2726 o visite nuestro sitio web técnico en www.hardwoodexpert.ahfproducts.com.

IMPORTANTE AVISO SOBRE SALUD SOLO PARA LOS RESIDENTES DE MINNESOTA: THESE ESTOS MATERIALES DE CONSTRUCCIÓN EMITEN FORMALDEHIDO. SE HA INFORMADO DE PRESENCIA DE IRRITACION DE LOS OJOS, LA NARIZ Y LA GARGANTA, DOLOR DE CABEZA, NAUSEAS Y UNA DIVERSIDAD DE SINTOMAS SIMILARES AL ASMA, INCLUYENDO DISNEA, COMO RESULTADO DE LA EXPOSICION AL FORMALDEHIDO. LAS PERSONAS MAYORES Y LOS NIÑOS PEQUEÑOS, ASÍ COMO CUALQUIER PERSONA CON UNA HISTORIA DE ASMA, ALERGIAS O PROBLEMAS PULMONARES, PUEDEN TENER MAYOR RIESGO. SE CONTINÚA INVESTIGANDO SOBRE LOS POSIBLES EFECTOS DE LA EXPOSICION AL FORMALDEHIDO A LARGO PLAZO.

LA VENTILACION INSUFICIENTE PUEDE HACER QUE EL FORMALDEHIDO Y OTROS CONTAMINANTES SE ACUMULEN EN EL AIRE INTERIOR. LAS ALTAS TEMPERATURAS Y LA HUMEDAD EN INTERIORES ELEVAN LOS NIVELES DE FORMALDEHIDO. CUANDO UNA VIVIENDA ESTE UBICADA EN AREAS SUJETAS A TEMPERATURAS EXTREMAS DE VERANO, SE PUEDE UTILIZAR UN SISTEMA DE AIRE ACONDICIONADO PARA CONTROLAR LOS NIVELES DE TEMPERATURA. SE PUEDEN UTILIZAR OTROS MEDIOS DE VENTILACION MECANICA CONTROLADA PARA DISMINUIR LOS NIVELES DE FORMALDEHIDO Y OTROS CONTAMINANTES DEL AIRE INTERIOR.

SI TIENE PREGUNTAS RELACIONADAS CON LOS EFECTOS DEL FORMALDEHIDO SOBRE LA SALUD, CONSULTE CON SU MEDICO O CON EL DEPARTAMENTO DE SALUD DE SU LOCALIDAD.

II. PREPARACIÓN

Almacenaje y manejo

El revestimiento de piso de madera dura maciza debe almacenarse en el ambiente en el cual se va a instalar. Entregue los materiales en un lugar donde las condiciones ambientales estén controladas. El contenido de humedad de los materiales de madera del contrapiso no debe exceder de 12%. Use un medidor confiable de humedad de la madera, y mida y documente el contenido de humedad tanto del contrapiso como del revestimiento de piso de madera dura para determinar el contenido de humedad adecuado. La diferencia entre el contenido de humedad del contrapiso de madera y el revestimiento de piso de madera no debe exceder de 3% (2% por tabla). Revise el contenido de humedad de múltiples tableros. Para tener una mejor idea revise 40 tableros por cada 1,000 pies cuadrados.

Aclimate el revestimiento de piso de madera dura en la obra, o fuera de ella, según sea necesario, para cumplir con los requisitos del contenido de humedad. Almacene en un lugar seco, proporcionando al menos un espacio de aire de 4" (10 cm) debajo de las cajas de cartón que estén guardadas sobre pisos de concreto "a nivel del suelo". El revestimiento de piso no debe entregarse hasta que la edificación tenga colocadas las puertas y ventanas, y hasta que todo el trabajo que involucre cemento, enlucido y otros trabajos "húmedos" se haya concluido y secado. El concreto debe tener por lo menos 60 días de haber sido vaciado.

Condiciones del lugar de la obra

- No entregue el revestimiento de piso de madera en cualquier sitio de trabajo ni instale el revestimiento de piso de madera hasta que el edificio este totalmente encerrado y protegido de las condiciones del clima exterior con todas las ventanas, puertas, paneles de revestimiento exterior, soffits, cubrimiento de tejado, aislamientos y ventilación en su lugar.
- Todo el trabajo de concreto, mampostería, armazón, paneles de yeso, pintura y otros trabajos "húmedos" deben estar completamente secos. Los revestimientos de pared deben estar en su lugar y el trabajo de pintura terminado, excepto la capa final de zócalo. Cuando sea posible, retarde la instalación del zócalo hasta que se haya concluido la instalación del revestimiento de piso. Los sótanos y los entrepisos bajos deben estar secos y bien ventilados.
- El nivel exterior deberá estar terminado junto con el desagüe de la superficie, proporcionando un descenso mínimo de 3" en 10' (7.6 cm en 3.05 m) para mantener el flujo de agua alejado de la estructura. Todas las canaletas y los bajantes pluviales deberán estar en su lugar.
- Los revestimientos de pisos de madera dura maciza se pueden instalar por debajo, sobre o por encima del nivel del suelo. Se requiere instalar un contrapiso adecuado sobre el concreto. No los instale en baños con ducha o bañera.
- Los entrepisos bajos deben tener un mínimo de 46 cm (18") del suelo a la parte inferior de las vigas. Se recomienda cubrir el suelo con una película de polietileno negro de 6-20 milésimas de pulgada que actuará como barrera de vapor, con las juntas espaciadas a 6" (15 cm) y selladas con cinta adhesiva resistente a la humedad. El entrepiso bajo deberá tener una ventilación de perímetro igual a 1.5% correspondiente al área en pies cuadrados (m²) del entrepiso bajo, como mínimo. Estas aberturas de ventilación deberán estar debidamente ubicadas para promover la ventilación cruzada (Figura 1). Donde sea necesario, las normas locales prevalecerán.
- El lugar de la instalación deberá tener una temperatura ambiente constante de 60-80° F (16-27° C) y una humedad del 30-50% durante 14 días antes, durante y hasta que el lugar se haya ocupado.

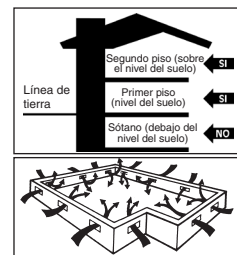


Figura 1

ADVERTENCIA: EXISTENCIA EN EL SITIO DE RECUBRIMIENTO DE PISO FLEXIBLE Y ADHESIVOS ASFÁLTICOS. NO LIJE, SEQUE, BARRA, RASPE EN SECO, TALADRE, ASIERRE, GRANALLE NI DESPONTILLE MECÁNICAMENTE O PULVERICÉ EL REVESTIMIENTO DE PISO FLEXIBLE EXISTENTE, EL RESPALDO, EL FIELTRO DE FORRO, EL ADHESIVO ASFÁLTICO U OTROS ADHESIVOS.

Estos productos existentes ya instalados pueden contener fibras de asbesto y/o sílice cristalina. Evite crear polvo. La inhalación de ese polvo constituye riesgo de cáncer y para el sistema respiratorio. Los fumadores expuestos a las fibras de asbesto presentan mayores riesgos de padecer graves daños corporales.

A menos que esté positivamente seguro de que el producto existente instalado sea un material que no contiene asbesto, debe presumir que lo contiene. Las regulaciones pueden exigir que se realice una prueba al material para determinar el contenido de asbesto, y pueden ordenar la remoción y desecho del material. Consulte la edición actual de la publicación del Instituto de Recubrimientos de Pisos Flexibles (Resilient Floor Covering Institute, RFCI) de "Prácticas de Trabajo Recomendadas para la Remoción de Recubrimientos de Pisos Flexibles" para las instrucciones sobre remoción de todas las estructuras de recubrimiento de pisos flexibles, o comuníquese con su distribuidor.

Ni el revestimiento para piso ni el adhesivo de este paquete contienen asbesto.

**INSTALADORES - ADVIERTAN A SUS CLIENTES DE LO SIGUIENTE
PROPIETARIOS DE REVESTIMIENTOS DE PISO – TENGAN EN CUENTA LO
SIGUIENTE**

Estaciones: Cuando se usa y cuando no se usa calefacción

En vista de que las dimensiones de los revestimientos de piso de madera dura se verán afectadas ligeramente por las variaciones de los niveles de humedad dentro de la edificación, se debe tener la precaución de conservar los niveles de humedad dentro del rango de 30-50%. Para proteger el revestimiento de piso y proporcionar satisfacción duradera, a continuación se indican las recomendaciones del fabricante.

- **Estación de uso de calefacción (seca):** Se recomienda el uso de un humidificador para evitar la contracción de los pisos de madera dura debido a los niveles bajos de humedad. Las estufas de madera y la calefacción eléctrica tienden a crear condiciones muy secas.
- **Estación cuando no se usa la calefacción (húmeda, lluvia):** Se pueden conservar niveles adecuados de humedad utilizando un acondicionador de aire, deshumidificador o activando periódicamente el sistema de calefacción durante los meses de verano. Evite la exposición excesiva al agua que arrastra en los zapatos durante los períodos de clima inclemente. No obstruya en forma alguna la junta de expansión alrededor del perímetro de su piso.
- **Los daños causados por no mantener la humedad a niveles adecuados no está relacionado con la fabricación y anulará la garantía del piso.**

NOTA: La inspección final del usuario debe realizarse desde una posición de pie.

REPARACIÓN DEL PISO

Los daños menores pueden repararse con un kit de retoque o relleno de Bruce. Los daños de mayor cuantía requerirán el reemplazo del tablero, lo cual puede hacerlo un instalador profesional de pisos.

Scotch-Blue is a trademark of 3M.

Armstrong is a trademark of AWI Licensing LLC.

All other trademarks are owned by AHF Products or its subsidiaries.

Scotch-Blue est une marque de commerce de 3M.

Armstrong est une marque commerciale AWI Licensing LLC.

Toutes les autres marques de commerce appartiennent à AHF Products ou à ses sociétés affiliées.

Scotch-Blue es una marca registrada de 3M.

Armstrong es una marca registrada de AWI Licensing LLC.

Todas las otras marcas comerciales son propiedad de AHF Products o sus subsidiarias.