

ENGINEERED FLOORING INSTALLATION INSTRUCTIONS & FLOOR CARE GUIDE

25 YEAR FINISH WARRANTY • REV:03.15-251.5

IMPORTANT

Please read the following information and instructions in their entirety before proceeding with installation.

- To ensure the full benefit of warranties, these instructions and maintenance procedures must be followed.
- Hardwood flooring is a beautiful product with natural variations in color, tone and grain. We cannot warrant against color variations within a floor nor variations between samples and the installed floor.
- Subfloors must be dry, level and clean.
- Both room and flooring must be properly acclimated to temperature and humidity conditions.
- Installers: Inform your customers of the details in section: "Installers – Advise Your Customer of the Following."
- Do not open flooring packages until you are ready to begin installation.

- Work out of several cartons at the same time to ensure color and shade mix.
- This flooring may be laid over radiant heating provided there is effective and uniform heat distribution over the entire floor. The floor's surface temperature must never exceed 80°F. in any place. Maple, Beech, Ash and Asian Jatoba expand and contract more than other wood species. There is a greater risk of gaps occurring with these species especially when installed over radiant heating systems. Such gaps are NOT manufacturing defects and are not covered by the warranty.
- Do not use water based adhesives over sheet vapor barriers or sound insulation.
- Do not nail or staple 5/16" thick flooring planks.
- Not recommended for bathroom or other high moisture installations.
- Use of stain, filler or putty stick for defect correction during installation should be accepted as normal procedure.

INSTALLER/OWNER RESPONSIBILITY

Beautiful hardwood floors are a product of nature. This flooring is manufactured in accordance with accepted industry standards, which permit a defect tolerance not to exceed 5%. The defects may be manufacturing or natural.

- When flooring is ordered, **5% must be added to the actual square footage needed** for cutting and grading allowance.
- The installer assumes all responsibility for final inspection of product quality. This inspection of all flooring should be done before installation. Carefully examine flooring for color, manufacturing, factory finish and quality before installing it. The installer must use reasonable selectivity and hold out or cut off pieces with defects,

whatever the cause. If material is not acceptable, do not install it and contact the seller immediately.

- Prior to installation of any hardwood-flooring product, the installer must **determine that the job-site environment and the subfloors involved meet or exceed all applicable standards** and recommendations of the construction and materials industries. These instructions recommend that the construction and subfloor be dry, stiff and flat. The manufacturer declines any responsibility for job failure resulting from or associated with sub-surface or job-site environmental deficiencies.

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.

Material Safety Data Sheets are available at 1-800-318-0316

TOOLS NEEDED FOR INSTALLATION

- Handsaw, circular saw or jigsaw
- Chalk line
- Hammer
- Tape measure
- Pull bar
- Tapping block
- Wooden or plastic spacer wedges
- Moisture meter (wood, concrete or both)

INSTALLERS - ADVISE YOUR CUSTOMER OF THE FOLLOWING

SEASONS: HEATING AND NON-HEATING

Recognizing that wood floor dimensions will be slightly affected by varying levels of humidity within your building, care should be taken to control humidity levels within the 40–60° and 60°–75° Fahrenheit temperature range. To protect your investment and to assure that your floors provide lasting satisfaction, we recommend the following:

- Heating Season (Dry)** - A humidifier is recommended to prevent excessive shrinkage in wood floors due to low humidity levels. Wood stoves and electric heat, in particular, 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.

RADIANT HEATING

See the "Installing Over Radiant Heat" and "Exclusions To Warranty: Radiant Heat" sections for specific details to inform your customers about radiant heating.

FLOOR REPAIR

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

INSTALACIÓN POR CLAVETEADO O ENGRAMPADO

PREPARACIÓN DEL SUBSUELO

Saque toda la suciedad y elimine las áreas ásperas ya sea limpiando, lijando o nivelando. **Nota: para una instalación por claveteado o engrampado, no recomendamos el uso de la madera aglomerada como subsuelo.** El subsuelo limpio debe cubrirse de pared a pared con papel de resina de 15 libras (6.8 Kg), que suba unas 4 pulgadas (101.6 mm) a lo largo de los bordes.

INSTALACIÓN

Para determinar que la primera fila esté bien derecha, use una cuerda de resorto (remover la lengüeta) para que la última tabla sea de por lo menos 2" de ancho.

- Considere 3/8 pulgada (9.5 mm) de espacio para expansión a lo largo de

INSTALACIÓN CON PEGAMENTO

Pegando las tablas

- Para determinar la primera fila derecha, use una línea de sujeción del ancho de unas cuantas tablas mas 3/8 pulgada (9.5 mm) como espacio de expansión de la pared. Para mantener derechas y en su lugar las primeras filas, clave una tabla de retención derecha de 1 x 2 pulgadas ó 1 x 4 pulgadas (25.4 mm x 50.8 mm ó 25.4 mm x 101.6 mm) en la primera línea de sujeción.
 - Traze otra línea de sujeción a una distancia cómoda para trabajar a partir de la tabla de retención (a unas 24 pulgadas – 609.6 mm).
 - Extienda el pegamento en la primera área de trabajo. Sólo extienda el pegamento que pueda cubrirse en 20 minutos.

COMPLETANDO EL TRABAJO

- Saque las cuñas espaciadoras.
- Cubra con molduras todos los espacios de expansión a lo largo de la paredes y las protuberancias. Clavar las molduras a la pared, nunca al piso de madera.
- Limpie, barra y aspire el piso antes de usar.

RESIDENTIAL WARRANTIES

EXCLUSIVE LIFETIME WARRANTY

This flooring is produced according to strict manufacturing and environmental standards. Our confidence in the product is reflected by extension of this full residential warranty to the original purchaser.

PRE-INSTALLATION WARRANTY

We warrant that this product is free of defects and exceeds the industry standards. You and/or your installer should carefully inspect each plank before installation. Any uncut planks that appear to have defects should not be installed and can be returned to the original place of purchase to be replaced at no cost to you.

LIFETIME STRUCTURAL WARRANTY

We guarantee that this product is free from defects in lamination and milling and will remain free of these defects for as long as you own your residence. In the unlikely event of delamination, warping, cupping or buckling of the product because of manufacturing defects, we will replace or repair the defective flooring pieces at no cost to you.

FINISH WARRANTY

We warrant that there will be no wear-through of the finish for 25 years in residential installations provided the recommended maintenance procedures are followed.

NO-BUCKLE MOISTURE WARRANTY

We guarantee that our floors will bond to the subfloor for the life of the flooring provided the installation and application are in full compliance with the installation instructions and the adhesive manufacturer's application instructions.

ENVIRONMENTAL WARRANTY

All components of this flooring are chosen for their responsible environmental impact. This flooring product does not harm the environment throughout its complete life cycle from production through disposal. All woods are from professionally managed "sustained yield" forests. All glues used within this flooring are MR LFE "E1" standard.The acrylic finish does not release any harmful solvents, formaldehyde or heavy metals.

las paredes. El piso se debe colocar en ángulo derecho a la viga del suelo y, si fuera posible, en la dirección del lado más largo de la habitación.

- Mientras mas grande sea la superficie del área, mayor será la necesidad de expansión requerida. Para habitaciones mayores a 1,000 pies cuadrados o excediendo 25 pulgadas en cualquier dirección del perímetro de expansión el espacio debe incrementarse 1/16 de pulgada por cada 3 pulgadas adicionales. Asimismo, coyunturas de expansión adicionales deben ser colocadas en la mitad de la superficie de la habitación así como también en las puertas y corredores apropiados. El espacio de expansión debe estar cubierto de molduras de transición (molduras-T). No rellenar los espacios vacíos o brechas de expansión.

completa del piso y que evite temperaturas altas en cualquier área.

- Debajo de subsuelos de contrachapado las placas de transferencia de calor o aislantes deben estar en su lugar.
- El subsuelo debe estar completamente seco. La humedad en una base seca no debe exceder 1.5% para concreto, 0.3% o menos en yeso y 6-12% en subsuelos de madera.
- Una barrera de vapor debe ser instalada en todo el subsuelo de concreto, piedra, mineral o madera. Debe estar directamente debajo y lo más cerca del piso posible.

- Las pipas de calefacción deben estar cubiertas con concreto de 1" o estar un mínimo de 1/8" debajo del subsuelo de contrachapado.
- La madera debe yacer hermética apoyada en la sub-superficie, si no está hermética puede causar resequeidad considerable de la madera.

COMPOSICIÓN

Áreas contiguas de calefacción radiante y sin calefacción radiante con envergadura de expansión.

de tal manera que las uniones en las filas se alternen por lo menos en 8 pulgadas (203.2 mm). Las uniones alternadas o irregulares significan menos desperdicio de material y una mejor apariencia del área total.

- Planifique la distribución de tal manera para que la última fila del piso (que generalmente se tiene que cortar a lo largo) no sea tan delgada. En algunos casos, puede que también sea necesario cortar la primera fila así como la última. Medir a través del cuarto entero para calcular el ancho de la última tabla. La última tabla no puede ser de menos de 2" de ancho. Si es necesario, sacar la primera fila (remover la lengüeta) para que la última tabla sea de por lo menos 2" de ancho.

- Considere 3/8 pulgada (9.5 mm) de espacio para expansión a lo largo de

instrucciones del fabricante de la lámina de vinilo, usando pegamento del más alto grado y resistente a los alcalinos. Extienda todo el sistema de aplicación para adherir el vinilo al subsuelo. No usar adhesivos a base de agua en los aislantes de sonido o de vapor.

PREPARACIÓN

- Para tener suficiente material a la mano, calcule el área y agregue 5% más de material para incluir los desperdicios por corte y por pequeños defectos naturales o de fabricación.
- Use varios paquetes a la vez para asegurar la combinación en el color y tono.

DISTRIBUCIÓN

- La distribución debe hacerse para ahorrar trabajo y materiales así como realizar la apariencia del piso. El piso será más fuerte y más estable si usted lo distribuye

INSTALACIÓN SOBRE LA CALEFACCION RADIANTE (Solo para instalación flotante)

Nota: se necesita tomar en consideración

con cuidado especial que cuando se están escogiendo las especies de madera que se van a instalar sobre la calefacción radiante. Maple, Haya, Fresno y Jatoba Asiática se expanden y contraen mas que otras especies. Hay mayor riesgo de que ocurran vacíos o espacios huecos, especialmente cuando se esta instalando sobre la calefacción radiante y eso puede nulificar la garantía. Sírvese a leer "Excepciones a la Garantía: Calefacción Radiante" para mas detalles de estas especies sobre la calefacción radiante.

EXCEPCIONES DE LA GARANTÍA: CALEFACCIÓN RADIANTE.

Solo los sistemas de calefacción de temperaturas bajas, aquellos que están regulados para nunca exceder los 80°F en la superficie de madera. Si el área de la superficie permite exceder los 80°F la garantía es nula. El único tipo de instalación aceptable es la Flotante (Float-in) para los subsuelos con calefacción radiante. Las maderas de Maple, Haya, Fresno y Jatoba Asiática se expanden y contraen mas que otras especies. Hay mayor riesgo de que ocurran vacíos o espacios huecos, especialmente cuando se instala sobre los sistemas de calefacción

INSTALACIÓN FLOTANTE

INSTALE LAS CAPAS PARA PISOS

Instale una barrera de vapor de Polietileno de 6 mil sobre toda la superficie del piso. Coincida las láminas de Polietileno de 16 pulgadas y adhiérralas para crear un sellado hermético. Usando una capa de espuma de 1/8 de pulgada (3.2 mm), desenrolle un rollo a la vez teniendo cuidado de no hacerle huecos o dañar de cualquier otra forma el material durante la instalación. Deje que la capa de espuma suba por lo menos 1 pulgada a 1.5 pulgada (25.4 mm to 38.1 mm) y asegúrela con una cinta autoadhesiva. Una las orillas de la capa de espuma con cinta autoadhesiva. Una cinta autoadhesiva cualquier otro borde que esté suelto. Se puede sustituir la capa de espuma/barrera contra la humedad "2-en-1" por el Polietileno.

INSTALACIÓN DEL PISO

Las tablas se instalan de izquierda a derecha con el lado de la ranura mirando la pared. Se repetirá un patrón de escalón en toda la instalación. Escalone los extremos

radiante. Estos vacíos o espacios huecos no son errores de manufactura y no están cubiertos con la garantía.

INSTALADORES— FAVOR DE INFORMAR A SUS CLIENTES DE LO SIGUIENTE

- La temperatura máxima permitida para piso de madera es de 80° Fahrenheit (20°C). Tomar en cuenta que las alfombras incrementan la temperatura 5° Fahrenheit (3°C) o incluso más.
- Mantener la humedad entre 45–60% todo el tiempo. Usar humidificadores si es necesario.
- La temperatura del cuarto no debe variar más de 15°F (8°C) de estación en estación.
- REQUERIMIENTOS DEL SISTEMA DE CALEFACCIÓN
 - Solamente sistemas de calefacción radiante de baja temperatura, con un control exacto; y, que aseguren que la superficie del piso nunca rebasará temperaturas que excedan 80° F son permitidos.

de las tablas en no menos de 8 pulgadas (203.2 mm). **Deje un mínimo de 3/8 pulgada (9.5 mm) para expansión alrededor de todos los objetos verticales** como son las paredes, postes y escaleras. Si la pared por donde comienza está desnivelada, traze el contorno de la pared, utilizando un punzón de trazar, sobre la primera fila de tablonés y corte al tamaño adecuado.

APLICACIÓN DEL PEGAMENTO

Para asegurar que tendrá un piso de madera durable, las tablas deben pegarse con un pegamento sobre la lengüeta y ranura. Nostros recomendamos el pegamento PVAC resistente al agua.

El pegamento debe aplicarse en un cordoncillo continuo de 1/8 pulgada (3.2 mm) en la parte superior del interior de la ranura en los bordes cortos y largos.

PEGANDO Y APLICANDO CINTA

AUTOADHESIVA

Encaje al seco la primera fila en un patrón de escalón de escalera. Numere cada tablón

en el orden de la instalación. Cuando llegue al último tablón de la primera fila, voltee el tablón 180° de tal manera que la lengüeta esté junto a la lengüeta del tablón anterior. Marque el tablón y corte al largo adecuado. Encaje al seco el último tablón de la fila. Comience a encajar al seco la segunda fila, comenzando con (y utilizando siempre que sea posible) la pieza que sobró de la fila anterior. Asegúrese de escalonar los extremos de las tablas por lo menos 10 pulgadas (254 mm) para lograr un patrón de escalón. La instalación flotante termina cuando se pegan y encintan juntos los perfiles del piso. Separe las primeras dos filas teniendo presente el orden de la instalación. Sosteniendo la primera tabla con la lengüeta sobre la palma de su mano, aplique un cordoncillo fino de pegamento sobre la ranura al lado y extremo de la tabla. Repita el proceso con los tablonés subsecuentes.

Presione cada tabla firmemente, topando ligeramente. Martille si fuere necesario. Limpie el exceso de pegamento entre las

PRE-INSTALLATION PROCEDURES

ACCLIMATING THE HARDWOOD FLOORING

HVAC systems should be fully operational at least 14 days prior to flooring installation, maintaining a consistent room temperature between 60°–75° Fahrenheit and relative humidity between 40–60%. This not only stabilizes the building's interior environment, but also is essential when acclimating hardwood flooring to the job site.

Hardwood flooring should be unloaded and handled with care and stored within the environmentally controlled site. Flooring stored upon "on-grade" concrete floors should be elevated at least four inches to allow air circulation under cartons. Cartons should be spaced out, not stacked or stored on pallets. **Leave hardwood flooring in closed cartons during acclimation period.** Typical applications require at least a 48-hour acclimation period.

ROOM PREPARATION

Remove existing baseboards, quarter rounds, thresholds and undercut door jambs, using a piece of flooring material as a guide. Door frames and other wooden elements should be sawed off at the bottom in order to be able to push the panels under them.

PRE-INSTALLATION INSPECTION

It is the responsibility of the installer to inspect each board for visible defects before installation. Any board with visible defects will be replaced at no cost. If the defective board has been installed, no cost of labor will be paid for repair or replacement of defect.

SUBFLOOR TYPE

The manufacturer can be installed over the following subfloors if properly prepared. For other types of subfloors please contact your distributor.

- Concrete:** On, above or below grade installations are acceptable. Must be

clean, dry and smooth within 3/16" over 10'.

- **Acoustic Cork:** Must be bonded to the surface. Density must be between 11.4 and 13 lbs/cubic foot. Cork must be a maximum of 1/4" thick, made from pure cork with polyurethane binders.

- **Terrazzo and Ceramic Tile:** Should be lightly sanded and cleaned with mineral spirits. Allow the mineral spirits to dry prior to spreading the adhesive. If grout lines are too deep they need to be filled and allowed to dry before installation.

- **Wood Type Subfloors:** Includes plywood, OSB and underlayment particle board and tongue and groove boards. Must be smooth and dry. Squeaks and popping areas should be screwed prior to spreading adhesive.

- **Vinyl:** Includes sheet and vinyl tile. Vinyl must be securely fastened to the subfloor with full spread adhesive. Loose laid or perimeter glued sheet vinyl must be removed. Lightly sand vinyl, clean with mineral spirits and allow to dry prior to spreading adhesive.

SUBFLOOR PREPARATION

Subfloor must be:

- clean and free of wax, paint, oil, and debris. Scrape smooth and sweep.

- subfloor should be flat to 3/16" over 10'. If subfloor prep work is required, "hills" should be sanded down and "valleys" filled with an underlayment patch, developed by a reputable manufacturer for use with hardwood flooring. Do not sand sub-surfaces such as vinyl or synthetic tiles that may contain asbestos. For depressions less than 1/4", it is possible to use dry sand as a lever.

- structurally sound prior to installation. Screw loose areas to reduce squeaking and replace water damaged or delaminated sub-flooring or underlayments.

WOOD SUBFLOOR MOISTURE TESTING

Check moisture content of subfloor especially adjacent to exterior walls and plumbing fixtures. **Moisture content of subfloor must not exceed 12% or have more than a 4% difference than moisture level of product being installed.** If more than a 4% difference, determine the source of moisture and remedy prior to installation.

CONCRETE SUBFLOOR MOISTURE TESTING

Several tests are outlined below. These tests do not guarantee a dry concrete slab year round. With that in mind, a moisture barrier using a minimum of 6 mil poly film should have been installed between the ground and concrete. See "Moisture Barrier System" below.

- **3% Phenolphthalein in Anhydrous Alcohol Solution** Do not apply solution directly to concrete surface. First, chip 1/4" deep into concrete test area and apply several drops of the solution. If any change in color is observed, further testing is required.

- **Calcium Chloride** Moisture transfer should not exceed 3 lbs/1,000 square feet with this test. One test must be performed every 250 square feet.

- **Allow 3/8" expansion space along all walls.** Flooring should be laid at right angle to the floor joist and, if possible, in the directions of the longest dimension of the room.

MOISTURE BARRIER SYSTEM

If the above tests reveal unacceptable moisture levels, install sheet vinyl (PVC) directly to concrete slab. Follow instructions from sheet vinyl manufacturer, using a premium grade alkaline resistant adhesive and full spread application system to bond vinyl to subfloor. Do not use water based adhesives over sheet vapor barriers or sound insulation.

SET UP

- In order to have sufficient material on hand, **calculate area and add 5%** of material to allow for cutting waste and minor natural or manufacturer's defects.
- **Work out of several cartons at the same time** to ensure color and shade mix.

LAYOUT

- Layout should be designed to save labor and materials as well as to enhance the appearance of the floor. The floor will be stronger and more stable if you lay it so that the joints in the rows are staggered at least 10 inches. Staggered or irregular joints mean less material waste and a better overall appearance. Stair stepping and "H" joints are not as visually pleasing as randomly staggered end joints and will waste labor and material.

- Plan the layout so that the last row of flooring (which usually needs to be cut lengthwise) is not too narrow. In some cases, it may be necessary to cut the first row as well as the last row. Measure across the entire room to calculate the width of the last board. The last board cannot be less than 2" wide. If necessary, rip your first row (remove tongue edge) so last board can be at least 2" wide.

- **Allow 3/8" expansion space along all walls.** Flooring should be laid at right angle to the floor joist and, if possible, in the directions of the longest dimension of the room.

- The greater the surface area, the greater the room for expansion required. For rooms larger than 1,000 sq. ft., or exceed-ing 25' in any direction the perimeter expansion space must be increased 1/16" for every additional 3'. Also, additional expansion joints must be added in the middle of the room or in appropriate door-ways and archways. The expansion space should be covered with transition mold-ings (T-moldings). Do not fill the expansion gaps.

INSTALLING THE FLOOR

Boards are installed left to right with the groove side facing the wall. A stair-step pattern will be repeated throughout installation. Stagger the ends of the boards a minimum of 8 inches. **Leave a minimum 3/8" expansion around all vertical objects** such as walls, poles, and stairs. If starting wall is uneven, trace the contour of wall, using a scribe, onto first row of planks and cut to size.

GLUING AND TAPING

Dry fit first row using stair-step pattern. Number each plank in the order of installation. When you reach the last plank in first row, turn plank 180° so tongue is flush against tongue of previous plank. Mark the plank and cut to length. Dry fit final plank of row.

APPLICATION OF ADHESIVE

To secure a durable wood floor the boards must be bonded with adhesive in the tongue

and groove. We recommend waterproof PVAC glue. The glue must be applied in a continuous 1/8" bead on the inside top of the groove on both the long and short edges.

GLUING AND TAPING

Dry fit first row using stair-step pattern. Number each plank in the order of installation. When you reach the last plank in first row, turn plank 180° so tongue is flush against tongue of previous plank. Mark the plank and cut to length. Dry fit final plank of row.

GLUE-DOWN INSTALLATION

GLUING THE PLANKS

- To determine a straight first starting row, use a snap line the width of a few boards plus 3/8" expansion space from the wall. To keep first rows straight and in place, nail a straight 1" x 2" or 1" x 4" holding board on the first snap line.
- Make another snap line at about 24" from the holding board.
- Spread adhesive in first working area. Do not spread more adhesive than can be covered within 20 minutes.
- When the first section is complete, strike another parallel snap line from the last row installed, spread the adhesive and complete the section.
- Repeat section by section until the job is finished. Remove the starting board, spread adhesive and complete the area from the starting board to the wall.
- To fit the last piece, lay it upside-down with the tongue edge parallel to the tongue edge of the piece next to it, the short end butting up against the wall. Mark the cutting line on the back of the board and cut it to the correct width (save the cut off piece for the second row). Turn it over, fit it and glue in place.

NAIL-DOWN OR STAPLE-DOWN INSTALLATION

Note: Do not nail or staple 5/16" thick flooring planks.

SUBFLOOR PREPARATION

Remove all dirt and rough areas by thoroughly cleaning, sanding and leveling. **note: particle board is not a suitable subfloor** for nail- or staple-down installation. The clean sub-floor should be covered wall-to-wall with 15 lb resin paper, overlapping 4" along the edges.

GENERAL INFORMATION FOR PNEUMATIC FASTENING MACHINES

Note: Use pneumatic staplers with correct shoe base for thickness of the product.

Improper pressure settings and failure to use proper adapters can cause severe damage to the flooring. The correct adapter and air pressure setting will properly set the fastener in the nail pocket. Low air pressures may fail to properly set

ALL INSTALLATIONS: COMPLETING THE JOB

- Remove spacer wedges.
- Cover all expansion gaps along walls and vertical protrusions with base board,
- Clean, sweep and vacuum installed floor-ing before use.

FLOOR CARE GUIDE

PREVENTATIVE MAINTENANCE

To ensure the full benefit of warranties and to extend the beauty of your new hardwood floor, we recommend the following preventative maintenance steps for your hardwood floor.

- Use floor mats at all entrances to help keep dirt and moisture from being tracked in. Area rugs are recommended in high traffic areas and at sinks. Mats and area rugs should be slip resistant with backing that will not discolor the floor.

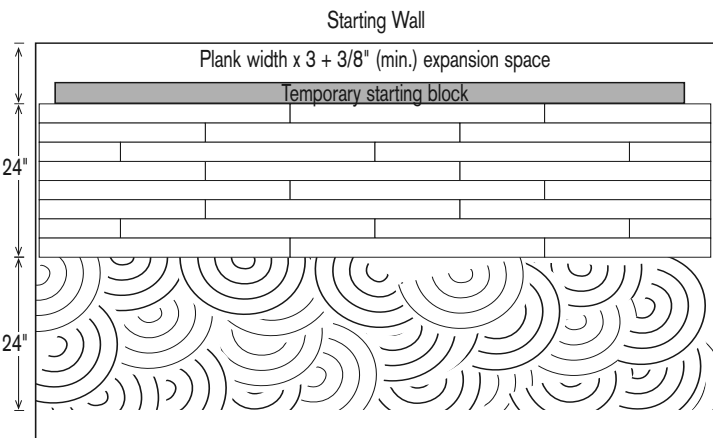
- To help guard against scratches and dents, install felt floor protectors under furniture legs and equipment.

Begin dry fitting second row, starting with (if possible) left over piece from previous row. Be sure to stagger end of boards at least 10" to achieve effective stair step pattern.

Floating installation is completed by gluing and taping flooring profiles together. Separate first two rows noting installation order. Holding the first board with the tongue resting in the palm of your hand, apply a thin bead of glue in the groove on the side and end of the board. Repeat process with subsequent planks. Press each board firmly together, tapping profiles lightly with a block and hammer if necessary. **Clean excess glue from between boards with a damp**

cloth. Tape each board together at side and end seams. Often the last row will not end with a full plank. When this happens, place a full row of planks on top of the last row installed. Insert a 3/8" spacer against wall, and using a full width plank, trace distance from wall onto final row. Cut planks for final row to designated width. Apply glue and fit into place. **Tape may be removed within one hour.** Allow 12 hours before placing furniture on floors and 24 hours before introducing heavy objects or full traffic.

Note: Do not install cabinets or walls on top of floating floors.



INSTALLATION

To determine a straight first starting row, use a snap line the width of a few boards plus 3/8" expansion space from the wall. To keep first rows straight and in place, nail a straight 1" x 2" or 1" x 4" holding board on the first snap line. For nailer or stapler use correct shoe based on thickness of flooring. (See illustration under glue-down installation.)

Begin installation with several rows at a time, tightening boards as necessary to reduce gaps before fastening. Attach each board with fasteners every 6"-8" and 3" from the ends.

The last 1-2 rows will need to be face nailed where clearance does not allow blind nailing with stapler or brad nailer. Brad nail or face nail on tongue side. Rip the final row to fit and face nail. If the final row is less than 1" width, it should be edge-glued to the previous row, before installation. The two joined rows can be face nailed as one board.

Go back to the starting wall, remove the starting block and complete final rows using 6d nails, counter sunk and filled.

INSTRUCCIONES DE INSTALACION - EN ESPAÑOL

IMPORTANTE

Sírvase leer toda la información e instrucciones que se indican a continuación antes de proceder con la instalación.

- Los subsuelos deben estar limpios y a nivel.
- Asegúrese de que tanto la habitación como el piso estén adecuadamente acimataados a la temperatura ambiente y a las condiciones de humedad.
- Sólo abra los paquetes del piso cuando esté listo para iniciar la instalación.
- Trabaje con varios paquetes a la vez para asegurar una combinación en el color y tono.
- Estas instrucciones y procedimientos de mantenimiento deben seguirse para asegurar los beneficios completos de las garantías.
- No usar adhesivos a base de agua en los aislantes de sonido o de vapor.
- No clavar ni grapar en los tablas o duelas de grosor 5/16".

RESPONSABILIDAD DEL INSTALADOR/PROPIETARIO

Los pisos de madera verdadera son un producto de la naturaleza. Nuestros pisos se han fabricado en conformidad con las normas aceptadas por la industria, que permiten una tolerancia de defectos hasta el 5%. Los defectos pueden ser naturales o de fábrica.

- Cuando se hace un pedido de pisos, **se debe agregar un 5% al área actual.** Esto es para permitir el desperdicio debido al corte y clasificación.
- El propietario asume toda responsabilidad en la inspección final de la calidad del producto. La inspección de

todo el piso debe realizarse antes de la instalación. Antes de colocar el piso, examínelo con cuidado para verificar el color, fabricación, acabado de fábrica y calidad. El instalador debe seleccionar las piezas razonablemente y no usar o cortar partes con defectos, cualquiera sea la causa. Si el material no es aceptable, no lo coloque y contacte inmediatamente al vendedor.

- Antes de la instalación de cualquier producto de piso de madera dura, el instalador debe determinar que el entorno de trabajo y los subsuelos involucrados satisfagan o exce-

dan todos los estándares aplicables así como las recomendaciones de construcción y los materiales industriales. Estas instrucciones recomiendan que la construcción y el subsuelo se encuentre seco, duro y plano.

- El fabricante rehusa cualquier responsabilidad en las fallas del trabajo, que resulten o estén asociadas con la sub-superficie o deficiencias ambientales en el lugar de la obra.

HERRAMIENTAS NECESARIAS PARA LA INSTALACIÓN

- Mesa
- Serrucho
- Línea de marcar
- Palanca con pie
- Martillo
- Taco para golpear

- Sierra circular o sierra de vaivén
- Cinta Métrica
- Cúñas espaciadoras de madera o plástico

Para la instalación con pegamento, utilice DriTac® 6200, DriTac 9200, Parabond® Millennium 2002, Bostik Best®, Taylor 2071

o un pegamento para pisos similar. Siga las pautas del fabricante y las herramientas recomendadas cuando use el pegamento. No usar adhesivos a base de agua en los aislantes de sonido o de vapor.

PREAUCION: Si no usa las herramientas apropiadas, puede ocurrir un "fruncimiento"

PROCEDIMIENTOS ANTES DE LA INSTALACIÓN

PREPARACION DE LA HABITACION DURA

Sacar los zócalos, umbrales y guías de las jambas de las puertas, utilizando una pieza del material del piso como guía. Se recomienda aserrar los extremos inferiores de los marcos de las puertas y otros elementos de madera para poder deslizar las tablas por debajo de éstos.

INSPECCIÓN ANTES DE LA INSTALACIÓN

Antes de la instalación, usted tiene la responsabilidad de checar cada tabla para observar si existen defectos visibles. Si se ha colocado una tabla defectuosa, no se pagará el costo por reparación o reemplazo del material defectuoso.

TIPO DEL SUBSUELO

El piso de madera dura puede instalarse sobre los siguientes subsuelos si se preparan de manera adecuada. Favor de contactar a su distribuidor para otros tipos de subsuelos.

- **Concreto:** Se puede instalar en, sobre o debajo del grado. Debe de estar limpio, seco y a nivel con 3/16 pulgadas (4.8 mm) sobre 10 pies (3.1 m).

- **Corcho Acústico:** Debe pegarse a la superficie. La densidad debe ser entre

11.4 y 13 lbs./pies cúbicos. El corcho debe ser de 1/4" máximo de grueso y hecho de corcho puro con aislante de poliuretano.

- **Loseta de Terrazo o Cerámica:** Debe ser levemente lijada y limpiada con sustancias minerales. Permitir que las sustancias minerales se sequen antes de untar el adhesivo. Si las líneas lechadas son demasiado profundas deben ser rellenadas y se deben de secar antes de la instalación.

- **Subsuelos de tipos de madera:** Incluye el contrachapado, OSB y capa base de madera aglomerada y tablas machihembradas. Deben estar lisas y secas. Antes de colocar el piso repare las áreas con chillidos o que salten.

- **Vinilo:** Incluye láminas y baldosas de vinilo. El vinilo debe estar bien asegurado al subsuelo con una capa completa de pegamento. Cualquier lámina de vinilo suelta o pegada sólo por el perímetro debe de sacarse. Lije ligeramente el vinilo y limpie con esencias minerales y deje secar bien antes de instalar el piso.

PREPARACIÓN DEL SUBSUELO

El subsuelo debe estar:

- Limpio y libre de cera, pintura, aceite y/o basura. Raspe hasta que esté liso y luego barra antes de la instalación.

- Los subsuelos deben estar planos con un desnivel no mayor de 3/16 pulgadas (4.8 mm) por 8 pies (2.4 m) de radio. Si el subsuelo requiere de trabajo preliminar, las protuberancias deben lijarse y las partes hundidas rellenarse con un material de relleno para usar en pisos de madera dura de un fabricante reconocido. No lije las superficies inferiores como las baldosas de vinilo o sintéticas que puedan contener asbestos. Se puede usar arena seca como nivelador para las hendiduras pequeñas, de menos de 1/4 de pulgada (6.35 mm).

- Es necesaria una estructura sólida en la instalación. Atornille las áreas sueltas para evitar crujidos y reemplace el subsuelo o capas base que presenten daños a causa del agua o que hayan perdido el lamina-do.

PRUEBA DE HUMEDAD DEL SUBSUELO DE MADERA

Por la humedad, los subsuelos de madera deben ser examinados, especialmente los

INSTALLATION OVER RADIANT HEAT (Floating installation only)

Note: Special care should be taken into consideration when choosing a wood species to be installed over radiant heat. Maple, Beech, Ash and Asian Jatoba expand and contract more than other species. There is a greater risk of gaps occurring especially when installed over radiant heating systems and may void the warranty. See the "Warranty Exclusions: Radiant heat" for more detail before installing these species over radiant heat.

INSTALLERS—ADVISE YOUR CUSTOMER OF THE FOLLOWING

- Maximum allowable wood surface temperature is 80° Fahrenheit. Note that rugs can increase surface temperatures 5° Fahrenheit or more.

- Maintain 45-60% humidity at all times. If necessary, use humidifiers.

- Room temperature should not vary more than 15° Fahrenheit season to season.

HEATING SYSTEM REQUIREMENTS

- Only low temperature radiant heating systems with accurate control systems that assure that the floor's surface temperatures never exceed 80°F are permitted.

- The entire floor area must be evenly heated. Even with perimeter heating systems the floor's surface temperature must never exceed 80°F.

SETTING THE HEATING SYSTEM FOR INSTALLATION

- System must be fully operating at normal temperature for a minimum of 21 days prior to floor installation.

- The heating system must be turned off 24 hours prior to installation and must remain off for 24 hours after installation.

- Starting 24 hours after completion of installation, turn on the heating system and gradually increase the temperature over a 7-day period to normal operating level. Never allow the floor surface temperature to exceed 80° Fahrenheit.

SUBFLOOR

- The floor construction should have a heat dissipating layer that provides an even temperature across the entire floor area and avoids high temperatures in any area. Under plywood subfloors heat transfer plates or insulation must be in place.

- The subfloor should be completely dry. Moisture on a dry weight basis must not exceed 1.5% for concrete, 0.3% or less

- for gypsum and 6–12% for wood sub-floors.

- A vapor barrier should be installed on all concrete, stone, mineral or wood subfloors. It must be directly under and as close to the flooring as possible.

- Heating pipes must be covered with 1" of concrete or be a minimum of 1/8" below bottom of plywood subfloor.

- The wood floor must lie tight against the sub-surface without an air gap that can cause considerable drying out of the wood.

LAYOUT

- Separate adjoining radiant heated and non-radiant heated areas with expansion joints.

an airtight seal. Using 1/8" foam padding, roll out one roll at a time over vapor barrier being careful not to poke holes or otherwise damage material during installation. Run

padding up walls 1" to 1.5" and secure in place with tape. Join padding sections with tape strip. Tape down any additional loose

edges. A "2-in-1" foam padding /moisture barrier may be substituted for Polyethylene.

