INSTALLATION INSTRUCTIONS

I. GENERAL

Engineered Hardwood Flooring can be installed over most properly prepared sub-floors where moisture conditions are controlled under industry standards. See information and installation guidelines below:

Caution: Wood Dust

PROPOSITION 65 WARNING: Cutting, sanding or machining wood products produces wood dust. While wood products are not hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), the International Agency for Research on Cancer (IARC) and the State of California have classified wood dust as a human carcinogen. Airborne wood dust can cause respiratory, skin and eye irritation.

Precautionary Measures: Power tools should be equipped with a dust collector. Use an appropriate NIOSH-designated dust mask. Avoid dust contact with skin and eyes.

First Aid Measures in case of irritations: In case of irritation flush eyes with water. If needed seek medical attention. If dermatitis occurs, seek medical attention.

WARNING! DO NOT MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES.

Previously installed resilient floor covering products and the asphaltic or cut back adhesives used to install them, may contain either asbestos fibers and/or crystalline silica. A|Wood products DO NOT contain asbestos or crystalline silica. Avoid creating dust. Inhalation of asbestos or crystalline silica are considered respiratory hazard.

II. INSTALLER/OWNER RESPONSIBILITY

It is the responsibility of the installer to ensure that job site conditions are in accordance to meet or exceed the minimum requirements necessary before installing any new wood flooring. The manufacturer reserves the right to decline any responsibility for product performance or installation failure due to sub-floor, substrate or environmental deficiencies or job-site negligent conditions. All work involving water or moisture (i.e.: plumbing, masonry, painting, plastering, etc.) must be completed prior to wood flooring being delivered/installed. HVAC systems should be in normal operation for at least 14 days prior to job-site flooring delivery. After its installation, protect the wood flooring but do not cover it with plastic, red rosin, felt or wax paper. Use a breathable material such as clean, dry plain Kraft paper. The floor must be completely covered to eliminate uneven color changes from exposure to UV light.

A|Product requires its engineered hardwood products to acclimate for 48 hours prior to installation. Acclimation allows flooring to achieve necessary equilibrium moisture content (EMC) with the installation environment. All wood continually expands and contracts until it reaches moisture equilibrium with the environment in which it's installed.

Building interiors are affected by two distinct humidity seasons: "Heating and Non-heating". Room temperature should be maintained between 60~ 80°F, with relative humidity between 35~55%. These environmental conditions are specified as pre-installation requirements and must be maintained for the life of the product for ultimate results.

HEATING SEASON

LOW HUMIDITY, DRY

All heating methods create dry, low humidity conditions. Humidifiers are recommended to prevent excessive shrinkage or gapping in wood floors due to seasonal periods of low humidity

NON-HEATING SEASON AND COASTAL OR WATERFRONT AREAS

HIGH HUMIDITY, WET

During the non-heating season, proper humidity levels should be maintained by using an air conditioner and/or dehumidifier.
After receiving your delivery and prior to installation, examine your flooring for color, finish and overall quality. If material is unacceptable, please contact your A|Product representative immediately (or use the contact form at www.tus.com). Wood is a natural product and contains characteristics such as variations in color, tone and graining. All of A|Product flooring lines, are manufactured in accordance with industry standards, which allows manufacturing and natural defect tolerances up to 10% of the total installation. Installers should work from several cartons at the same time to ensure good color and shade blend. Installers should not install undesirable pieces. Installers and Owner(s) are responsible for final inspection of flooring manufacture, grade and finish. It is recommended to purchase an additional 10% of flooring to allow for regular waste factor during the installation process. An additional 10% must be added if installing on a diagonal.

It is recommended that excess flooring (1-2 cartons) to be retained and stored for future repairs in the event of any accidental damage.

Warranties do not cover material with visible defects once they've been installed. The use of stain, filler or putty for correction is considered a normal practice and a routine part of installation.

III. BASIC TOOLS AND ACCESSORIES

- Broom, cloth towels, mineral spirits
- Coordinating transition strips or molding
- Coordinating stain, filler or putty
- Chalk line
- Thick felt or rubber pads
- Safety glasses
- Straight edge, pencil
- Tape measure
- Pry bar or trim puller
- 15 Lb. saturated felt

Floating Installation

- Hand or electric jam saw
- Power circular saw or miter saw
- Wood / Concrete moister meter or both ½" wood spacers
- Table saw
- Carpenter's square, utility knife, pull bar
- Adhesive (if applicable)
- Tapping block
- 3M blue #2080 tape
- Putty knife, plastic scraper

Use performance accessories, underlayment or products that meet or exceed these basic product's specifications. The use of accessories other than performance accessories might cause damage to the engineered hardwood flooring. Therefore, we recommend products specifically designed, tested and approved for use with engineered hardwood flooring.

Direct Glue Installation

A|Product recommends HENRY® 1171N SURELOCK ™ Acrylic Urethane Wood Flooring adhesive with a V Notch 1/4" D x 3/16" W x 5/16" trowel for adhesive application. When installing on concrete sub-floors, trowels should be replaced every 3000 ft. Never use a water-based adhesive to install any types of Hardwood Flooring.

A|Product highly recommends using a full Ardex installation system as it will qualify your products for Ardex SystemOne supplemental warranty. For more information or details, contact your A|Product representative or visit https://www.ardexamericas.com/services/warranties/systemone/

IV. STORAGE AND HANDLING

Flooring should be stored at the job-site 48 hours prior to its installation, to allow to acclimate to the environment in which it will be installed. Flooring should be stored with at least 4 inches air space under cartons for best ventilation., Do not open cartons but do remove any plastic wrap that may have been used during the shipping process, this is especially important if you live in a very humid or dry climate.

V. PRE-INSTALLATION & JOB SITE CONDITIONS SUB-FLOOR REQUIREMENTS:

The following subfloor recommendations are intended to complement the installation of hardwood flooring as an interior finish. Hardwood flooring is not a structural component. These recommendations are not intended to supersede federal, state or local building codes, but as with many other interior finish products, may require modifying existing structural components for a successful installation.

SUBFLOOR PREPARATION FOR ALL INSTALLATIONS

Engineered hardwood floors may be installed over any structurally sound sub-floor that is flat, clean and dry on all grade levels. Do not install in full bathrooms or powder rooms. All sub-floors should be:
CLEAN – Sub-floor must be clean and free of dirt, curing compounds, drywall mud, wax, paint, oil, sealers, adhesives and other debris.
FLAT – Within 3/16'' in 10' radius (5 mm in 3 m) and/or 1/8'' in 6' radius (3 mm in 2 m). Sand high areas or joints. Fill low areas with a high compressive strength (min. 3,000 psi) Portland based compound. A|Product recommends using Ardex patching and leveling compounds.

DRY – Select the appropriate moisture indicator test specifically designed for use with wood or concrete sub-floors. Test and record moisture content results.
STRUCTURALLY SOUND – Nail or screw any areas that are loose or that squeak. Wood panels should exhibit an adequate fastening pattern, glued, screwed or nailed as that system requires using an acceptable nailing pattern. Typical: 6" (15 cm) along bearing edges and 12" (31 cm) along intermediate supports. Flatten edge swell as necessary. Replace any water-damaged, swollen, or delaminated sub-floor or underlayment.

SUB-FLOOR MOISTURE CHECK

NOTE: Moisture testing should be performed after the HVAC has been in operation for a minimum of 14 days. Excess moisture will cause floor covering failure. Warranties do not cover products installed over improperly prepared sub-floors, substrates, or environmentally related deficiencies.

CONCRETE SUB-FLOOR MOISTURE CONTENT

New concrete along with on and below grade applications are susceptible to moisture and should be tested for moisture prior to installation in several locations within the installation area. Acceptable conditions for above, on, and below grade applications on concrete are:

- Less than 3 lbs./1000 sq. ft./24 hrs. Calcium Chloride Test (ASTM F1869); or
- Less than 75% RH Levels in Concrete Using Insitu Probes (ASTM F 2170-02)

DO NOT INSTALL FLOORING IF MOISTURE TESTS RESULTS EXCEED RECOMMENDED LIMITS.

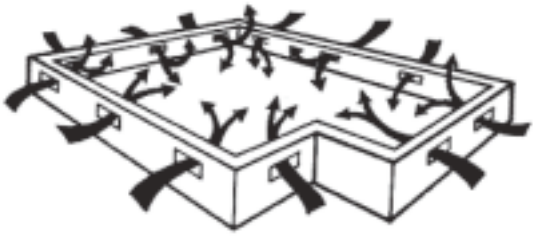
NOTE: Under normal conditions, new concrete slab requires a minimum of a 60 day drying period before it is ready for installation of any wood flooring. Although initial moisture tests may indicate a dry slab, the moisture content of slabs may increase due to seasonal fluctuation or weather patterns. New construction should have a minimum 10 mil membrane between the ground and concrete.

WOOD SUB-FLOOR MOISTURE CONTENT

Test both the wood sub-floor and wood flooring for moisture content using a reliable pin type moisture meter. The sub-floor material must not exceed 12% moisture content. The difference between the moisture content of the wood sub-floor and the hardwood flooring must not exceed 4%.

If sub-floor moisture readings exceed recommended levels for concrete or wood, steps MUST be taken to reduce sub-floor moisture. Consult with your A|Product or Ardex representative for the proper Ardex moisture remediation system for your application.

NOTE: Basements and crawl spaces must be dry. Use of a 6 mil black polyethylene membrane is required to cover 100% of the crawl space area. Clearance from ground to underside of joist should be no less than 18" and perimeter vent spacing should be equal to 1.5% of the total square footage of the crawl space area to provide cross ventilation.



SOLID WOOD SUB-FLOORS - DIRECT GLUE OR FLOATING INSTALLATIONS

- 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.
- For direct glue-down applications add 3/8'' (9.5 mm) approved floor panel underlayment.

EXISTING WOOD FLOORING – DIRECT GLUE OR FLOATING INSTALLATIONS

- Existing engineered flooring must be well bonded and fastened. When gluing over existing wood flooring, the surface finish must be abraded or removed to allow an adequate adhesive bond.

- Existing solid hardwood flooring that exceeds 6'' (15 mm) in width must be covered with 3/8'' (9.5 mm) approved underlayment and fastened as required. Do not install over solid flooring attached directly to concrete. Wood sub-floors should be well nailed or secured with screws. Nails should be ring shank and screws need to be counter sunk. The wood sub-floor needs to be structurally sound (sub-floor is without loose boards, vinyl, or tile). If sub-floor panels are a single layer, less than 3/4" thick, add another single cross layer for strength and stability (minimum 3/8" thick for a total 1 1/8" thickness). Underlayment floor panels must be installed sealed side down. When used as a sub-floor, 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. When installing parallel to the floor joists it may be necessary to increase rigidity of the structural sub-floor system by installing an additional minimum of 3/8'' (9.5 mm) approved underlayment floor panel.

APPROVED UNDERLAYMENT FLOOR PANELS SHOULD MEET OR EXCEED THE FOLLOWING:

- Plywood: Must be minimum CDX grade (exposure 1) and meet US Voluntary Product Standard
- PS1 performance standard or Canadian performance standard CAN/ CSA 0325-0-92. The preferred thickness is 3/4'' (19 mm) as a sub-floor [minimum 5/8'' (16 mm)] or 3/8'' (9.5 mm) as floor panel underlayment.
- Oriented Strand Board (OSB) conforming to US Voluntary Product Standard PS2 or Canadian performance standard CAN/CSA 0325-0-92 construction sheathing. Check underside of panel for codes. When used as a sub-floor, the panels must be tongue and groove and installed sealed side down. Minimum thickness is 23/32'' (18 mm) when used as a sub-floor or 3/8'' (9.5 mm) as floor panel underlayment.
- Wafer board and Chipboard conforming to US Voluntary Product Standard PS2 or Canadian performance standard CAN/CSA 0325-0-92. Must be 3/4'' (19 mm) thick when used as a sub-floor and 3/8'' (9.5 mm) thick as floor panel underlayment.
- Particleboard: Must be a minimum 40-lb. density, stamped underlayment grade and 3/4'' (19 mm) thick for floating installation only.

NOTE: Perimeter glued resilient vinyl and rubber tiles are unacceptable underlayment and must be removed.
Terrazzo, Vinyl, Resilient Tile, Cork and Linoleum or hard surfaces that are dry, structurally sound and level are suitable as a sub-floor. Terrazzo and ceramic tile must be scuffed to assure adhesion.

DIRECT GLUE INSTALLATION:

Make sure the floor covering materials are well bonded to the sub-floor/underlayment with full spread adhesive and no more than two layers thick, not to exceed 3/16'' (5 mm. If vinyl or tiles are loose, broken, or in poor condition, install a 3/8'' (9.5 mm) approved underlayment directly over the flooring materials. Clean the flooring materials as necessary to remove waxes, sealers or cleaning residues to allow a good adhesive bond. Cork floor sealers and surface treatments must be removed. Always check for adequate adhesive bond prior to beginning direct glue installation.

VI. PREPARATION & INSTALLATION

Undercut all door casings 1/16" higher than the thickness of the flooring materials being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or power jamb saw set at the correct height. Remove all moldings and wall base and undercut all door casings.

FLOATING INSTALLATION

Underlayment requirements are very critical to a floating installation. Excessive pad compression or compaction is a common cause of seam failure. Lay the underlayment on the floor with the moisture barrier facing up. The direction of the underlayment should be parallel to the direction of the floor. Under the first row of flooring the underlayment should be placed so that approximately 1-inch overlaps onto all perpendicular walls. Place the following row next to the first row on top of the lower moisture barrier to overlap. Remove the adhesive strip and fold back the upper overlap on the second row. Make sure the underlayment fits together tightly (don't leave gaps). On the last row, place the underlayment 1 inch up the wall. To join rolls on the short side of the underlayment, use a moisture resistant tape to connect the 2 pieces so water cannot penetrate the underlayment.

EXPANSION SPACE: An expansion space of at least 1/2" must be maintained around the perimeter of the room, all pipes, counters cabinets, fireplace hearths, door frames and any other fixed vertical objects. Doorway or archways 4 feet or less and rooms larger than a 26 x 33 are required to have a T-Molding.

GLUE AND GLUE PLACEMENT: The recommended glue for floating installation is D3 Rated Floating Floor Glue. The glue must be placed along the topside of the groove the full length of the grooved side and end. This can be accomplished by inverting the plank and applying a bead of glue (3/32") to the topside of the groove (nearest the face of the plank), when the plank is turned back over the glue will flow down the back of the groove allowing total coverage. Apply only a 3/32" bead of glue; if the groove is filled with glue it will be difficult to close the seam not allowing a tight fit.

GETTING STARTED: The installation begins with three rows of flooring glued together and held in place with 3M blue painters' tape (#2080) with the groove side facing the wall. Spacers must be used to establish the minimum 1/2" expansion space from the walls. These three rows must be straight, square, and in rack because they establish the alignment of the rest of the floor. After putting these three rows together allow the glue to set (15 to 45 minutes) before proceeding with the installation. With the tongue facing out the planks can be tapped together with a tapping block on the tongue to make a snug fit. After installing 8 or 10 rows of flooring stand back and check for crowning or heaving due to tension strapping or any damage caused by improper taping.

CLEAN AS YOU GO: If any glue squeezes out of the seam between the planks allow it to dry for 10 to 15 minutes and then lightly scrape it away with a plastic scraper or putty knife. Any glue left may be cleaned with a damp cloth. Do not allow the glue to dry on the face of the flooring as it will be very difficult to clean off.

STARTING OFF- ROW ONE: Plank 1 should begin in the left-hand corner of the room. Spacing around the wall perimeter of 1/2" can be maintained by using wood wedges. The planks are laid with the groove side facing the wall. The first row starts with a full-length board; working from left to right will be required when installing engineered hardwood flooring. Slide the end groove of the board being installed into the end tongue of the board you previously installed. Place each plank firmly against the wood wedges. After setting the first row and making sure you are against a firm starting point, lay out three to four rows before starting to install. (Figure 3)

FIGURE 3

Plank 2 end tongue is connected to the end groove of Plank 1. Lay the rest, plank after plank, in this manner until you have completed the first row. Cut the last plank accordingly. Please ensure that this first row is straight using the wedges to maintain proper 1/2" expansion space from the wall.

Row Two: When possible use leftover plank from the first row to begin the second row. The leftover piece from the first row should be considered for this starter piece to minimize waste. Initial layout of material will allow you to check your end seams to ensure they are not too close. End joints on adjoining rows should be offset by no less than 6". Align this plank and lock the side into place against the first plank in row 1. The next plank is aligned with the end joint first into the previously plank in row 2. The side of plank is then tapped lightly against the previously laid row. Continue laying in this way across the entire row. Remove the fitting wedge and press in the row of planks with a light pressure on the long side. The planks lock into each other. The Tapping Block square edge tapping block is needed to aid in the connection of the locking system on the long side. The planks are now laid row after row in this sequence.

Row Three and Remaining Rows: Move rows if necessary, to ensure that you are not showing any undesirable joint patterns. (Figure 2A) The rest of the row's end joints should be random throughout the floor. (Figure 1A) Your first three rows are staggered ensuring that offset of previous row with end joints are no closer than 6" from one another. When the planks are being tapped in place, a non-random pyramid or stair step pattern is used to ensure the planks remain engaged through the force of the tapping.

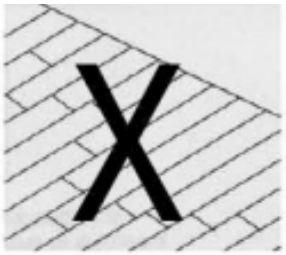


FIGURE 2A

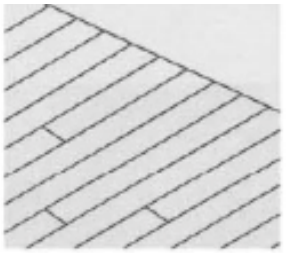


FIGURE1A

Most often walls are not structurally square. Planks in the first row may need to be scribed and cut to contour the first row with the wall and to allow for 1/2" expansion. Allow 1/2" expansion space at all vertical obstructions. Use 1/2" wood wedges or short cut 1/2" pieces of the floor against the wall to hold planks true to spacing. It is important that the planks follow the wall. Scribing is used if the wall is not straight. First, mark the plank with a scribing tool or other tool that will allow you to follow the shape of the wall and then cut it lengthwise to follow the line. (Figure 2)


FIGURE 2

TAPPING THE PLANKS TOGETHER: When tapping the planks together the following process works best:

1) Using the Tapping Block, lightly tap each piece for the first 3-4 rows. After the first 3-4 rows, you should only need the Tapping Block every third row. Start tapping in the plank at the opposite end along the length working from left to right, making sure the plank fully engages as you progress down the length. (Figure 4)

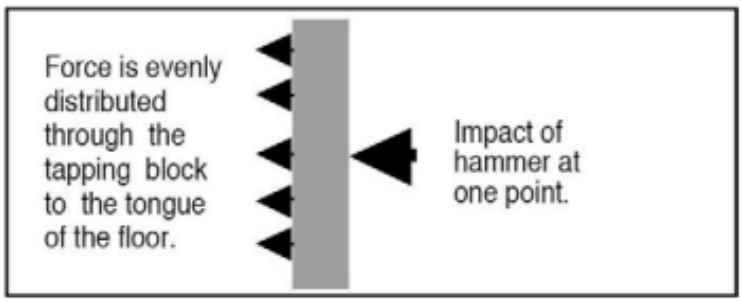


FIGURE 4

2) When end joint is slid into place on the preceding plank, raise the plank now being installed to an approximate 45° angle while setting the side joint into place. (Figure 6).

3) Once the plank in place, lower the plank while pushing in until plank locks in place. (Figure 7) If you are not against a firm starting structure on the first rows, it may seem more difficult to engage than the preceding rows.

The Tapping Block square edge is needed to distribute equal force across the tongue without any damage. (Figure 4 and Figure 5) For best results, slide the tapping block along the sub floor and row, tapping lightly with a hammer, using tapping strokes to engage the locking system. If the planks are not locking, check to see if the planks are moving against the wall with the strikes. If so, adjust shims or use the screw down starter row method.

STAPLE OR NAIL DOWN INSTALLATIONS: Engineered hardwood floors may be installed over wood sub-floors (except Luan, Parquet, Masonite) using staples or flooring cleats. When installing engineered wood planks or strips by nailing or stapling it is necessary to use the proper type of flooring stapler or nailer made for the thickness of the engineered wood flooring that is being installed.

Note: In addition to the ground cover in the crawlspace a 6-mil polyethylene layer or a 15lb felt or rosin paper must be installed over the sub-floor prior to the installation of the A|Wood engineered flooring to reduce squeaks and noises created by the opposing floors.

FIGURE 5

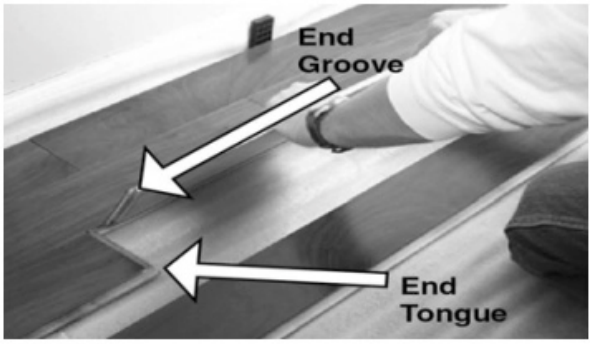


FIGURE 6

FIGURE 7

FIGURE 8

INSTALLING 6-MIL POLYETHYLENE: Install the polyethylene parallel to the direction of the flooring and allow a 3" overhang at the perimeter. Make sure each run of polyethylene overlaps the previous run by 6" or more.

LAYOUT THE JOB: Measure out from the ends of your starting wall 2 3/4" when installing 2 1/4" strip flooring or 3 1/2" when installing 3" planks and mark both ends. Where possible lay the flooring at 90° angles to the floor joists. Make a chalk line along the starting wall using the marks you made.

BEGINNING INSTALLATION

NOTE: Expansion space is required along the perimeter of room(s) of intended installation; expansion space is dictated by the thickness of the product. For example, 9/16" thick floor requires 9/16" expansion space, 1/2" thick floor requires 1/2" expansion space; 3/4 thick floors requires 3/4 "expansion space.

Place the planks with the tongue facing away from the wall and along your chalk line. Use brads or small finishing nails to secure the first starter row along the wall edge 1" to 2" from the ends and every 4" to 6" along the side. Counter sink the nails and fill with the wood filler that blends with the flooring installed. Place the nails in a dark grain spot in the board. The base or shoe molding will cover the nails when installed after completion of the installation. Blind nail at a 45-degree angle through the tongues. It will be easier **IF YOU PRE- DRILL THE HOLES IN THE TONGUES**. Nail 1" to 2" from the ends and every 4" to 6" along the sides. It will be necessary to blind nail the next 2 rows. A brad nailer with 1" to 1 3/8" brads can also be used to blind nail and no pre-drilling is needed.
Continue the installation using an engineered wood-flooring stapler, using recommended staples or nails. Nail or staple the flooring 1" to 2" from the ends and every 4" to 6" along the edge tongues.

PNEUMATIC FLOOR STAPLER: When stapling A|Wood engineered floors 9/16" x 71/2"x RL, use an 18 gauge 1-1/4" staple or longer. Note: you must use an appropriate adapter for the thickness of the wood on some flooring staplers. You must staple or nail 1" to 2" from the ends and every 4" to 6" along the tongue side of the engineered wood product. This will help insure a satisfactory installation. It is recommended to initially set the compressor at 80 to 85 PSI and adjust the pressure as needed to properly set the fastener and keep the staples from going through or breaking the tongues. Improper stapling techniques can cause squeaks in the floor. Adjustments may be necessary to provide adequate penetration of the nail or staple into the nail bed. You want it flush in the nail pocket. Use a scrap piece of flooring material to set tools properly before installation.

FINAL TOUCHES: Install the proper trim molding at the doorways to achieve the transition and along the walls to cover the edges of any gaps along the wall due to irregularity. Complete the job by using the wood filler that coordinates with the installed engineered flooring to fill any gapping along the joints or areas where brad nails were used in the trim or the flooring. Clean the finished floor with a hardwood flooring cleaner such as Bona.

GLUE DOWN INSTALLATION GUIDELINES

If an excess sub-floor moisture situation exists, contact your A|Product or Ardex representative prior to installation for a moisture remediation system for your specific application. If sub-floor moisture is below recommended levels, simply follow direct glue installation instructions below.

Direct Glue: A|Product recommends Henry 1171N adhesive for A|Wood engineered hardwood flooring glue-down installations. Follow manufacturer's instructions for proper installation using Henry 1171N adhesive.

GENERAL INFORMATION

1. Use an Ardex cement-based patch, skim coat leveling product to correct substrate imperfections (such as Ardex SKM or Feather Finish).
2. Regulate temperature and humidity 72 hours before, during and after installation.
3. Place cartons of wood flooring in area to be installed at least 48 hours before installation.
4. Install and secure starter row.
5. Spread adhesive using recommended trowel, ensuring 95 to 100% adhesive contact.
6. Press flooring firmly into adhesive after adhesive is applied following Henry 1171N adhesive instructions.
7. Inspect the installation and remove any adhesive smudges or drops immediately. Note: Urethane adhesive is very difficult to remove once dry and cured. Make every effort to prevent adhesive from getting on the flooring surface. For best results, keep a urethane adhesive cleaner nearby to remove any adhesive smudges or drops during installation.
8. Clean tools while adhesive is fresh using a urethane adhesive cleaner or mineral spirits.
9. Avoid light/regular traffic for at least 12 hours. Avoid heavy traffic for at least 24 hours.
10. See adhesive manufacture guidelines for OPEN TIME on the adhesive container.
11. Proper ventilation within the room must be provided. An electric fan is helpful.

STEP 1: Select a starter wall. It is recommended to start the installation along an exterior wall. It's more likely to be straight and square with the room. Measure out from the wall the width of two planks and mark each end of the room. Snap your chalk line.

STEP 2: Spread Henry 1171N Adhesive from the chalk line to the starter wall using the recommended trowel size. It is important to use the correct trowel at a 45°angle to get the proper spread of adhesive applied to the sub-floor producing a proper and permanent bond. Improper bonding can cause loose or hollow spots.

STEP 3: Install the first row of starter planks with the tongue facing the starter wall and secure into position. Alignment is critical and can be achieved by securing a straight edge along the chalk line (2x4's work well) by top nailing the first row with finishing nails (wood sub-floor) or adjustable spacers (concrete sub-floor). This prevents slippage of the planks that can cause misalignment.

STEP 4: Once the starter rows are secure spread 2 1/2 to 3 feet of adhesive the length of the room. (Never lay more adhesive than can be covered in approximately 2 hrs.) Place tongue into groove of plank or strips and press firmly into adhesive. Never slide planks or strips through adhesive. Use tapping block to fit planks snug together at side and butt ends. Clean any adhesive off the surface before it cures using clean terry cloth towels and mineral spirits.

Secure your starter rows with a straight edge (2x4). Once the remainder of the floor has been installed go back to the beginning and remove the straight edges and spread adhesive on the remainder of the open sub-floor. Remember planks closest to the wall may have to be scribed and cut to fit due to irregularities along the wall.

Clean Up Use clean white terry cloth towels as you go using with mineral spirits.. Adhesive that has cured on the surface of the flooring can be difficult to remove. Light foot traffic is allowed after 12 hours but wait 24 hours after installation to remove the 3M blue masking tape. Once the tape is removed clean any adhesive residue left from the tape using mineral spirits on a clean white terry towel.

SOUND/ACOUSTIC BARRIER: A|Product recommends Ardex DS70 acoustical underlayment for A|Wood engineered hardwood flooring projects. Contact your A|Product or Ardex representative regarding the use of DS70 on your project.

FINAL TOUCHES: Install the proper trim molding at the doorways to achieve the transition, and along the walls to cover the edges of any gaps due to irregularity. Complete the job by using the wood filler that coordinates with the installed engineered flooring for minor corrections or areas where brad nails were used in the trim or the flooring. Clean the finished floor with hardwood floor cleaner, such as Bona. Trim excess underlayment and install or reinstall any transition pieces, reducer strips, T-moldings, thresholds, bases and/or quarter round moldings. Trims and moldings should be nailed into the wall, not the floor. 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.

CLEAN UP: Use clean white cloth towels to clean as you go along with mineral spirits. It is easy and convenient to use. Adhesive that has cured on the surface of the flooring can be difficult to remove. Measures should be taken to protect floors from other trade work. If the floor is to be covered, the floor should be thoroughly cleaned prior to covering to prevent grit damage to the finish. Do not cover with plastic, red rosin, felt or wax paper or previously used cardboard. Instead use a breathable material such as clean, dry, plain uncoated cardboard or Kraft paper. Inks from printed cardboard could damage the hardwood floor. A common reinforced builder's paper is a good choice. Any covering should be taped, using a low-adhesion tape, tot the base or shoe moldings. Avoid taping to finished flooring. When taping paper or sheets together, tape them to each other, not to the floor. The floor must be completely covered to eliminate uneven ambering from exposure to UV light.

VII. MAINTENANCE

Engineered Hardwood Floors are very easily maintained. No wax, no mess. Simply use a common Hardwood Floor Cleaner and mop i.e. Bona systems.

TIPS & WARNINGS: Sweep regularly, with a soft bristle broom. • Remove spills promptly and use a hardwood floor cleaner and proper mop. You MUST use felt protectors under heavy pieces of furniture and chairs. • Use protective mats at all exterior entrances. Do not use mats or area rug cushions constructed of rubber or PVC. Instead use urethane backed products. • Spiked heels or shoes in need of repair can severely damage your floor and can void warranty. • Replace hard plastic, metal casters or wheels on furniture with soft rubber casters or by using a protective mat under the casters. • Never wet or damp mop your wood floors. Water can cause damage to wood flooring. • Never use oil soaps, wax, liquid or other household products to clean your floor. • The sun's UV rays can change the color of your floor. • Keep animal nails trimmed. • Protect your floor when using a dolly for moving furniture or appliances. Never slide or roll heavy furniture or appliances across the floor. • Never use steam cleaners on your wood floors. This will force moisture into the wood and cause damage to your flooring. •Use protective window coverings to protect hardwood floors from excessive heat during periods of direct sunlight.

Exterior and interior walk off mats should be used at all exterior entrance to avoid exposure to moisture from tracking during periods of inclement weather. Walk off mats should be routinely maintained to avoid becoming a soil source. The amount of patina/color changes is directly related to the specific species natural properties, which reacts differently in contact with oxygen and sunlight exposure. Some species will darken, some will partially loose it's natural colors. The entire floor will reach the same patina level over time. This is often noticed after a rug is removed and the floor is noticeably different in color underneath. If you remove the rug and expose the entire floor to the same amount of light, it will even out over time and become uniform in color.

VIII. WARRANTY

A|Wood products are warrantied not to wear through or separate from flooring for 25 years from the date of purchase on Residential applications and 10 years for light commercial application. Care and maintenance instructions, provided by A|Product, must be followed for warranty to be valid.

In addition, A|Product warranties against manufacturing defects caused by improper milling, grading, and finishing., Damages caused by improper transportation, storage, and installation are not covered under this warranty. A|Product, will only be liable for any defective flooring exceeding 5% of the original purchase order.

SUPPLEMENTAL WARRANTY: Use of complete Ardex/Henry installation systems will qualify your project for a SystemOne supplemental warranty of up to 10 years. For further information, please consult https://www.ardexamericas.com/services/warranties/systemone/

WARRANTY EXCLUSIONS!

The following is not covered under this warranty agreement:

Indentations, scratches or damage caused by negligence, or abuse.
Natural occurring changes in color from exposure to light.
Failure to provide proper environmental conditions, including but not limited to maintaining proper RH levels.
Failure to follow manufacturer's installation instructions, including but not limited to failure to use approved adhesives, moisture barriers, surface checking resulting from low relative humidity and/or mildew, discoloration, or cupping resulting from extreme sub-floor moisture.
Poor installation workmanship.
Improper care and maintenance.

MILLING DEFECTS:

A|Product flooring is produced under international guidelines, including NOFMA.

If the flooring professional, finds reoccurring problems during the installation, or determines the waste to be excessive and above the 5% allowed, **STOP** immediately and call the service department at A|Product (888-203-0054). Flooring that has been installed is deemed to be acceptable.

A|Product shall not be responsible for costs associated with the installation nor replacement of any flooring installed with obvious defects.

COLOR & GRAIN VARIATION: Wood is one of the richest and unique wonders of nature. No two pieces are alike and same species can vary based on the geographic area from which it was harvested. This is called "the perfect imperfection" by some. Small sample pieces used to display our products do not always reflect the overall look of a whole floor, A|Product is not responsible for claims related to variations in color from their sample displays to the actual floor installed unless clearly detected to be the wrong color/finish than originally sold.

TERMS AND CONDITIONS

The terms of this warranty become valid upon final payment and following the A|Wood installation instructions. The use of floor care products or different systems other than those recommended by A|Product may damage flooring and void this warranty. Inquiries regarding this warranty should be directed to our website aproductus.com.