

# Villa Collection

## INSTALLATION & MAINTENANCE INSTRUCTIONS | HARDWOOD

**PLEASE READ ALL INSTRUCTIONS CAREFULLY, BEFORE YOU BEGIN INSTALLATION.  
IMPROPER INSTALLATION WILL VOID WARRANTY.**

**DISCLAIMER:** For all situations not covered by these specific installation instructions, please refer to the NWFA (National Wood Flooring Association) current installation guidelines. See the NWFA website at [www.nwfa.org](http://www.nwfa.org) for more information.

Always check the TAS website ([www.tasflooring.com](http://www.tasflooring.com)) for the latest installation information, warranty and maintenance information. Read and follow all manufacturer instructions.

### **Please Note:**

Wood flooring is produced from natural materials that are affected by the environment it is installed in.

Wood is subject to normal expansion and contraction due to normal climate fluctuations within a home. Normal expansion and contractions can result in squeaks and/or popping sounds. This is inherent in wood flooring and not considered a defect.

Climate conditions within the home environment must be maintained between 35% and 55% RH (Relative Humidity)

Since wood is a natural product no two boards are alike. It is required that you work out of several boxes mixing product to achieve the desired visual appearance. It is recommended that the area be dry fit and inspected prior to permanent installation.

It is required that the installation occur in adequate natural or artificial light to inspect flooring prior to installation. Industry guidelines state that 5-10% of wood flooring will require culling. Once installed visible imperfections are not covered under warranty.

### **General Installation Guidelines:**

- 1) General Guidelines
- 2) Owner/Installer Responsibilities
- 3) Suitability of Product
- 4) Site Condition Requirements
- 5) Acclimation Requirements
- 6) Subfloor Flatness Requirements
- 7) Subfloor Construction Requirements
- 8) Radiant Heated Floors Suitability
- 9) Suitable Substrates
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- 13) Expansion Space
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- 15) Adhesive
- 16) Adhesive Open Time
- 18) Installation

### **1) General Guidelines:**

Always follow the most current installation instructions. For the most current instruction go to [tasflooring.com](http://tasflooring.com).

Always read the complete installation instructions prior to installation.

Always follow all Local and Federal Building Codes.

Always follow all OSHA regulations for safety.

### **Floating:**

- 19) Expansion Space
- 20) Expansion Trim
- 21) Foam Underlayment
- 22) 6 mil Polyurethane
- 23) T & G Adhesive
- 24) Installation

### **Nail - Staple**

- 25) Subfloor
- 26) Expansion Space - Trim
- 27) Glue Assist
- 28) Asphalt Felt Paper
- 29) Starter Row
- 30) Gauge/Length
- 31) Fastening Pattern
- 32) Application PSI
- 33) Installation

### **Tips - Protection - Maintenance**

- 34) Tips Floor Repair
- 35) Tips Seasonal Changes
- 36) Floor Protection
- 37) Maintenance

## **2) Owner/Installer Responsibilities:**

Make sure the latest installation instructions are followed, for the latest installation instructions go to [www.tasflooring.com](http://www.tasflooring.com)

Make sure the product is suitable for its intended use.

Visually inspect all material for color and finish prior to installation and remove any visibly defective material. Visibly defective material installed will not be covered under warranty. Always inspect flooring in adequate lighting.

Stop any project that does not meet installation guidelines and contact the flooring retailer it was purchased from.

Work out of several boxes mixing product for visual appearance. Dry fit prior to installation is the recommended method. Use reasonable selectivity and cull out unsuitable boards for whatever cause.

The use of stain, putty or filler for the correction of defects during installation should be considered as normal procedure.

An industry standard 5-10% waste factor, depending on layout, must be added to the original square footage required.

Diagonal installations require more.

NOTE: Project failures resulting from inappropriate or improperly prepared subfloor, job site environmental deficiencies, improper installation, improper care or maintenance are not covered under warranty.

## **3) Stability:**

**HARDWOOD IS INTENDED FOR USE IN CLIMATE CONTROLLED INTERIOR APPLICATIONS.**

***Approved for use in:***

- Residential applications: all living space including – exceptions: wet areas (kitchens, bathrooms, laundry)
- Multi-Family applications: all living space including – exceptions: wet areas (kitchens, bathrooms, laundry)
- Light Commercial applications: not approved
- Not approved for use in:
  - Areas of heavy rolling loads
  - Commercial Applications
  - Industrial Applications
- Please read warranty for a more complete definition of acceptable use

## **4) Site Conditions & NRC (Normal Room Conditions):**

Normal Room Conditions (NRC): Normal room conditions are defined as; ambient air temperature between 65-80 degrees Fahrenheit; surface temperature between 65-80 degrees Fahrenheit; ambient RH (Relative Humidity) between 35%-55%. All flooring products (including trim) are required to achieve NRC prior to installation

Concrete Subfloors must have an approved moisture vapor retarder film directly between the concrete and ground.

Wood subfloor crawl space must be well ventilated, have at least 24" between the ground and the bottom of the floor joists, and have an approved moisture film (6-8mil black polyethylene film) covering 100% of the ground space overlapped at seams and taped.

All others trades must have completed their work, flooring should be the last product installed on a job site.

NRC (Normal Room Conditions) must be consistently maintained at:

- Room temperature between 65 & 80 degrees F.
- Surface temperature between 65 & 80 degrees F
- Ambient RH (Relative Humidity) between 35% and 55%

## **5) Acclimation:**

***All products must acclimate to the room conditions in which they are being installed.***

Flooring products (including adhesive & trim) are designed to perform in normal room conditions (NRC). Flooring products must achieve and maintain NRC 24 hours prior to, during and after. Acclimate cartons laying flat, not on end or on side, stacked no more than 5 cartons high. Avoid storing flooring in direct sunlight. Do not store on operational radiant in-floor heated areas. Open the box ends without removing the flooring

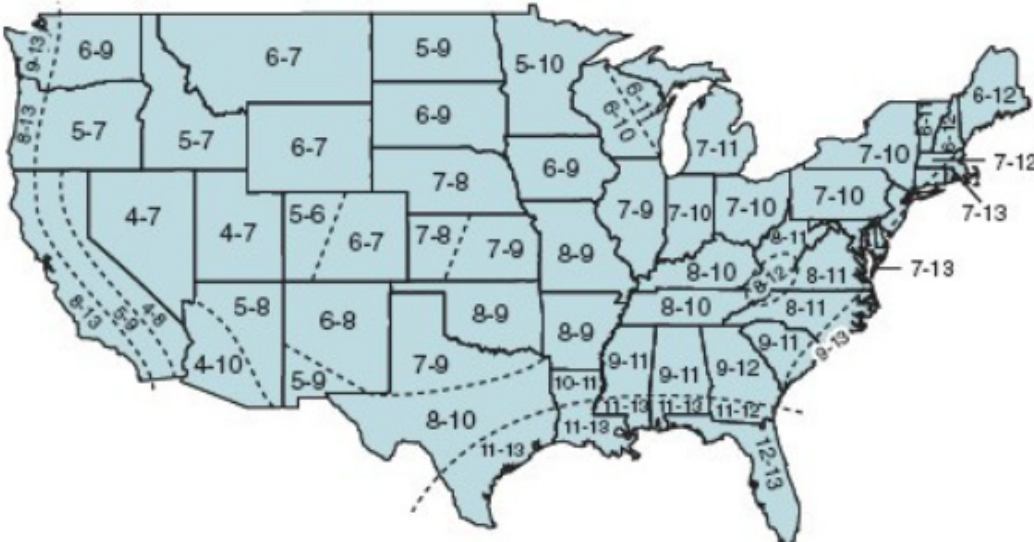
- Flooring must be acclimated in the environment it will be installed in, the building must be climate controlled, meet all moisture and climate requirements. All other trades must be completed prior to acclimation.

- If storing on a concrete/gypsum substrate allow a 4" air space between the flooring and the concrete.

It is critical to insure wood flooring is tested for moisture content prior to installation, moisture in the wood flooring must be within USDA Forest Products Guidelines for acceptable moisture content. Pin meters must be adjusted for the wood species being tested.

NRC (Normal Room Conditions) must be consistently maintained at:

- Room temperature between 65 & 80 degrees F.
- Surface temperature between 65 & 80 degrees F
- Ambient RH (Relative Humidity) between 35% and 55%



Please note: Products must acclimate Normal Room Conditions (NRC), time for products to achieve acclimation varies upon climate conditions.

Each pair of numbers shows the average moisture content of wood inside a home in January (lowest number) and July (higher number)

## **6) Subfloor Flatness**

Subfloor Flatness: Subfloor must be flat, grind high spots down and/or fill low spots with a quality cement patching compound. Allow patch to completely dry prior to installation. Follow patch manufacturers installation guidelines.

Follow all local build regulations and OSHA procedures when grinding. Some substrates might contain harmful contaminants; such as silica sand or asbestos. It is critical that you determine prior to grinding if there are any harmful contaminants in the subfloor.

Floor flatness must not exceed 3/16" in 10' (1/8" in 6')

## **7) Subfloor Construction:**

Subfloors must be clean, dry, soundly constructed and free of any materials that might interfere with bonding, or preventing the flooring from direct contact with the substrate. Subfloors must be free of vertical movement (deflection). Substrate and subfloor must conform to all Federal and Local Building Codes (UBC).

Subfloor must be a minimum 3/4" T&G underlayment grade wood. Floor joists must be a minimum of 2" x 8" 16" on center.

## **8) Radiant Heated Floors:**

**Radiant Heat (HYDO SYSTEMS ONLY) APPROVED ONLY FOR THESE COLORS: Victorian Birch, Boulder Birch, Bayview Birch, Syke Maple, Nordic Maple, Sierra Maple, Mystique Maple, Natural Acacia, Natural Acacia Smooth, Espresso Acacia.**

**NOT APPROVED FOR ALL Hickory Species, including: Castle Rock Hickory, Plateau Hickory, Cottage Hickory, Jamestown Hickory, Natural Hickory, Solano Hickory, Canyon Hickory, Maricopa Hickory, Benton Hickory, Granite Hickory.**

Radiant Heated Substrates: In-Floor hydronic (water) radiant heat is acceptable to install over providing the substrate never exceeds 85 degrees Fahrenheit. In-Floor radiant heated floors must be turned off to achieve a substrate temperature between 65 and 80 degrees Fahrenheit prior to, during and for 48 hours after the installation.

- Floor warming systems, such as electric wire and mat systems, are not approved to install over.

The radiant heating system needs to be in floor and in operation for at least 7 days prior to installation, shut off 4 hours prior to flooring installation, and then returned to operation once the installation is complete. If using an adhesive to “glue-down” the Manufacturer’s Engineered Hardwood Flooring, please confirm with the adhesive manufacturer the suitability of the adhesive for use with radiant heating systems. Please refer to [www.radiantpanelassociation.org](http://www.radiantpanelassociation.org) for more information. It is up to the owner/installer to confirm the suitability of any radiant-heating system for the intended end-use. The selection and use of any radiant heating system is at the sole discretion and responsibility of the owner/installer.

## **9) Suitable Substrates:**

**Approved Substrates:** It is the floor covering installers responsibility to insure that subfloor conditions are suitable.

Substrates must meet all Federal and local building codes.

- Properly prepared concrete, cement patch & leveling, (minimum 3500 PSI). Must not exceed 85% RH (ASTM F-2170-09) and must not exceed 10lb MVER (ASTM F1869-10). pH levels must be between 5 and 9.
- Gypsum, properly prepared gypsum (minimum 3500 PSI). Must be dry based on gypsum and adhesive manufacturer standards, maximum 85% RH (ASTM F2170-09)
- Underlayment grade plywood, minimum 5.5mm thick. Must be dry, less than 10% moisture content.
- For hard to bond to substrates such as metal, Terrazzo, epoxy and ceramic tile, refer to the adhesive manufacturers installation instructions.
- Underlayment grade Orientated Strand Board (OSB) and Orientated Fiber Board (OFB), follow adhesive manufacturers instructions on proper preparation of OSB & OFB.
- Cushion underlayment designed for vinyl plank flooring (it is up to the underlayment manufacturer to determine suitability and provide warranty of performance.)

**Non-Approved Substrates:** It is the floor covering installers responsibility to insure that subfloor conditions are suitable. Substrates must meet all Federal and local building codes.

- Sleeper type floor systems
- Plywood installed directly over a concrete slab
- Soft plywood or plywood not approved as “Underlayment Grade” certified by the Plywood Association, Luan, and pressure treated.
- Masonite or hardboard
- Contaminated surfaces: abatement chemicals, paint, oil, mold, mildew, grease or any containments that might interfere with adhesive bonding.
- Strip plank wood flooring
- Uneven (3/16” in 10’) or unstable substrates

## **10) Substrate Moisture:**

### **Concrete & Gypsum Substrates**

- Not to exceed 80% RH (ASTM F-2170-09) and must not exceed 10lb MVER (ASTM F1869-10).
- It is difficult to measure gypsum substrates for moisture. Although Relative Humidity Probes (ASTM F-2170-09) are the recommended method of testing they are not practical due to the number of tests required and often the thickness of the gypsum. A professional electronic moisture indicator (Protimeter Aquant recommended) can be used to indicate if the substrate is dry enough to receive floor covering.

**Note:** A simple mat test can determine if there is excessive moisture. Tape a 2’ x 2’ 6 mil polypropylene mat to the substrate. The mat is removed after 72 hours and the substrate is inspected for any liquid moisture. If liquid moisture is present do not install, remediate moisture and retest to insure it meets specifications.

### **Wood Substrates**

- Not to exceed 10% moisture content. Moisture in the subfloor must not exceed 2% difference between the subfloor and the flooring.

## **11) Moisture Solutions:**

Whatever moisture mitigation process is used, it must reduce moisture to below 80% RH in glued

**Contact your flooring retailer with questions or concerns regarding your flooring purchase.**

loating Floors: a 6mil visqueen must be applied to on or below grade concrete substrates. A red rosin paper or asphaltic felt paper designed for use with hardwood flooring is an acceptable substitute for 6 mil visqueen.

Nail Down Floors: always apply a red rosin or asphaltic felt paper, intended for use with hardwood flooring prior to installation.

Glue Down Floors: excessive moisture must be mitigated using a 2-part epoxy moisture mitigation product, a moisture reduction membrane, or other moisture mitigation processes that achieve specified levels.

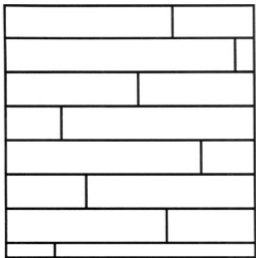
## **12) Layout:**

### **ESTABLISH A STARTING POINT: FLOATING, NAIL/STAPLE-DOWN AND GLUE-DOWN INSTALLATION**

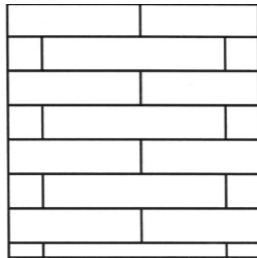
An exterior wall is usually the straightest and best reference line to start the installation from. If possible, the direction of the flooring being installed should be at right angles to the floor joists. Establish a starting line by leaving a minimum 1/2" expansion gap around all vertical obstructions. In at LEAST 2 places, measure out equal distances from the starting wall. It is recommended to measure 3-1/8" out from the starting wall and 12" - 18" in from the comers. Mark these points and snap a working chalk line parallel to the starting wall allowing the required expansion space between the starting wall and the edge of the first row of flooring. Plan the floor layout (widthwise) so you don't have to rip the last row **NARROWER** than 1". You may have to rip the **FIRST** row to ensure the **LAST** row is at **LEAST 1"** wide.

- It is best to lay flooring parallel to light source (such as a window).
- Dry lay rows to wall, if the plank to the long wall will be less than 2" adjust the center line to make the long wall plank over 2". The goal is to have planks next to the wall to be a minimum of 2". Balance the cuts in the room.
- For best visual stagger end joint by a minimum of 8" on a random basis.
- Distribute end joints staggered a minimum of 10" (figure 1), avoiding "H" patterns (figure 2)

**Figure 1:**



**Figure 2:**



PIPES, FLOOR VENTS AND OTHER OBJECTS Each case is unique, the general rule is to carefully measure before you cut and remember to leave the 1/2" expansion space. Expansion space will be covered with pipe rings or molding when the installation is completed. MOLDINGS & FLOOR VENTS If your room is more than 27' x 35' wide you will need to allow for an expansion joint. Expansion joints use T-molding and can be positioned in any inconspicuous place. Complete the installation by allowing the tongue and groove adhesive to dry as specified on the bottle, remove the expansion shims and install floor vents, transition molding and wall molding as needed. See your dealer/distributor for available products.

Open 4 to 5 separate cartons at one time and mix the pieces to maximize the color and shade variations.

- Install the product parallel to the longest wall to provide the most appealing visual effect.
- Distribute lengths, avoiding "H" patterns and other discernible patterns in adjacent runs. Stagger end joints of boards row to row a minimum of 10" for planks wider than 5" for better visual effects and structural stability on mechanically fastened installation.

## ***Glue Down Applications:***

### **13) Expansion Space:**

All buildings and all flooring expands and contracts. Allow a minimum 1/2" expansion gap at all vertical surfaces (walls, cabinets, door frames, pipes, thresholds, etc.) For expansion gaps that will not be covered by wall base, fill gap with a flexible silicone caulking. Always allow a minimum 1/2" coverage under transition trim and wall base.

- Undercut door casings 1/16" higher than wood flooring assembly.

**Contact your flooring retailer with questions or concerns regarding your flooring purchase.**

- Cut around pipe, allow a ½” expansion gap around the pipe.
- When installing floor vents, allow for a ½” expansion gap

#### **14) Expansion Trim:**

Transitions trim is designed to cover cut edges and cover expansion gaps; flooring must be allowed to freely float under the trim.

**Please note: Trim is coordinating, color and graining may not match flooring exactly.**

#### **15) Adhesive:**

Always use a premium grade adhesive designed for use with engineered hardwood plank, 7.5” wide by 6’ in length. Follow all adhesive manufacturer installation instructions. Always check trowel notch’s as they can become worn down during use. Always provide adequate ventilation.

TAS Flooring recommends:

Taylor Adhesive Ridgeline – for areas requiring 100% moisture protection and/or sound control.

Taylor Adhesive Ironwood – for areas requiring 90% moisture protection and/or sound control.

#### **16) Trowel:**

Always follow the adhesive manufacturers trowel notch recommendations based on the substrate and wood flooring construction. It is important to monitor the trowel notches as notches become worn down with use. It is the installers responsibility to maintain proper trowel notching.

#### **17) Adhesive Open Time:**

Open time is the time after adhesive is applied during which a serviceable bond can be made. Many factors affect open time, including temperature, substrate, adhesive, and amount of adhesive applied. All adhesives are different. Follow the adhesive manufacturers recommendation for adhesive open time, they know their product best.

### ***Glue Down Applications:***

#### **18) Glue Down Installation:**

- Make sure to use the straightest, longest boards available when installing the first two rows. REMINDER: Take boards from multiple boxes while installing. Do not install 2 pieces from the same box in a row; mix the colors and shades while installing to get a more favorable overall look. Also, remember to stagger the end-joints of adjacent rows at least 10” to create a more appealing look for the floor.
- Line up the groove of the first row with the starting point chalk line. The tongue of the boards should be facing the starting wall. Align and securely seat the first row in the adhesive-all additional rows will be pushed back to this row. It must be straight!
- When installing individual pieces, connect the end-joints first as close to the long tongue and groove as possible. Then slide (push) the long tongue and groove together as tightly as possible. Try to avoid sliding the pieces through the adhesive as much as possible-this will help negate memory pull-back (boards pulling apart once they are in position) and adhesive bleed-through (excess adhesive squeezing out vertically through the joints). You may need to use a scrap piece of the same product as a tapping block to help align the product.
- If the first row needs help staying in place, you can nail a board (using 1” concrete nails) on the dry side of your starting chalk line to stabilize it.
- Double check the edges and ends of your installed planks-they should all have a tight fit.
- Remember to stagger the end-joints of adjacent rows at least 6” to create a more appealing look for the floor.

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- Be sure not to spread your adhesive too far ahead of your work area! If the adhesive skins over and starts to dry, preventing a proper bond between the floor and the wood, remove the old and spread new adhesive. You must have adequate adhesive transfer to ensure the floor will be installed correctly. You can double check the holding strength of the adhesive by occasionally lifting a board and checking the transfer of the adhesive.
- Once the boards are tightly fitted together, use the 3M 2090 Blue Painter's Tape to hold the planks together while the adhesive dries. Make sure to clean any urethane adhesive off of the surface of the wood with mineral spirits or urethane adhesive remover BEFORE you apply the tape! If the adhesive dries on the surface of the wood it is VERY difficult to remove. After the installation is complete, remove all of the Blue Painter's Tape from the surface of the flooring. Remove the tape within 24 hours. NOTE: Do not use Masking Tape! Masking tape leaves a sticky residue on the surface of the wood which is very difficult to remove.
- Continue with this method while installing the rest of the floor. Rip the final boards in last row to fit and allow at least ½" of expansion space.
- After all excess adhesive and tape are removed; thoroughly clean the floor using a hardwood cleaner. • Re-install any moldings, door trim, end caps, etc. to complete the job. Make sure to nail any moldings into the wall-do not nail molding into the floor!
- To prevent surface damage to the floor avoid rolling heavy appliances and furniture across it. Use cardboard, plywood, or airlifts if possible.
- If further construction is necessary after the hardwood is installed, you can protect the installed floor by laying a quality rosin paper or other paper that allows the floor to breathe, taping it to the baseboards. NEVER use plastic, solid rubber, or polyethylene film to cover the installed floor since they both trap moisture and will damage the installed hardwood (creating cupping or swelling issues).

## **Floating Installation:**

### **19) Expansion Space:**

All buildings and all flooring expands and contracts. Allow a minimum 1/2" expansion gap at all vertical surfaces (walls, cabinets, door frames, pipes, thresholds, etc.) For expansion gaps that will not be covered by wall base, fill gap with a flexible silicone caulking. Always allow a minimum ½" coverage under transition trim and wall base.

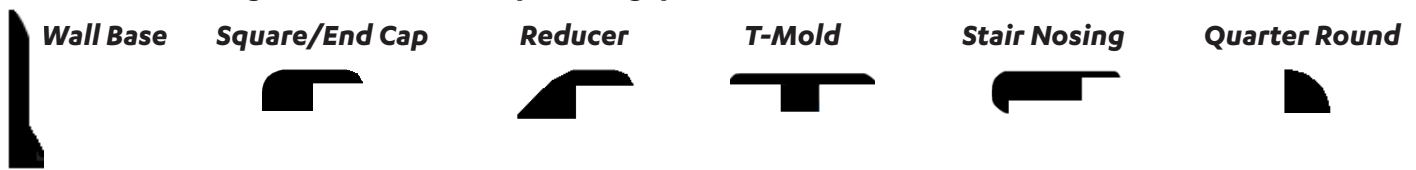
\* Undercut door casings 1/16" higher than wood flooring assembly.

### **20) Expansion Trim:**

Transitions trim is designed to cover cut edges and cover expansion gaps; flooring must be allowed to freely float under the trim.

**Please note: Trim is coordinating, color and graining may not match flooring exactly.**

Transitions trim is designed to cover the expansion gap;



### **21) Underlay:**

A premium grade underlay designed for use with floating hardwood flooring is required. It is the responsibility of the flooring installer to make sure an appropriate cushion is used. As a general rule lower profile and denser is the best choice.

- Install your first row in the SAME direction you will be installing the hardwood flooring.
- Extend the underlayment a few inches up the wall on either side.
- Trim this excess underlayment off AFTER installing the hardwood, but BEFORE you install trim or moldings.
- If a non-adhesive underlayment (on the seams) is used, tape all seams together.

### **22) 6 Mil Polyurethane Film:**

Install a 6 mil polyethylene film on all on-grade or below grade concrete substrates as a precaution against moisture .

### **23) T&G Adhesive:**

Floating floors require tongue and groove adhesive, always choose a premium quality adhesive designed for this use. Latitudes 7.5 recommends Taylor Adhesive #2049 T&G Adhesive.

**Contact your flooring retailer with questions or concerns regarding your flooring purchase.**

## **Floating Installation:**

### **24) Installation:**

- Install the first 4 rows together initially, allowing them to dry before installing the rest of the floor. This will ensure that the remainder of the floor is straight while installing.
- Select your first board. Remember to take boards from multiple boxes while installing. Do not install 2 pieces from the same box in a row-mix the colors and shades while installing to get a more favorable overall look. Also, remember to stagger the end-joints of adjacent rows at least 6" to create a more appealing look for the floor.
- The groove of the boards should be facing the starting wall. Use the longest boards available for the starter row. Apply a continuous bead of adhesive to the groove on the end of the board. Products with the end tongue on the LEFT should be installed right to left; if on the RIGHT they should be installed left to right.
- Complete the first row. Remember to keep a 1/2" expansion space on all sides touching the wall. Install wedges all along the wall against your first row to maintain that expansion space while you're installing. AVOID installing any boards shorter than 16" in the first four rows.
- Use the pull/pry bar to install the last board in the row. Install wedges into the expansion space and tighten.
- Once boards are installed, wipe off glue squeeze-out immediately with a clean, damp (not dripping wet-just damp) cloth.
- Using the 3M Blue Painter's Tape, tape the boards together after they have been glued and tapped together. This also ensures that the boards will remain tightly connected to each other while they dry.
- Start the second row by applying a continuous bead of adhesive to the inside groove on the length and end of the boards.
- Tap the boards together using a TAPPING BLOCK. Do NOT hammer directly on the tongue of the product-this will smash the end of the tongues making it impossible to install the next board to it.
- Install the remaining 3 rows the same way. Allow to set and dry before installing the rest of the floor.
- Remember to insert the wedges on the ends (as necessary) to restrain the movement of the floor while you are installing.
- Complete the floor, gluing the wood together as described above, and tape the boards together after you have cleaned up the squeeze out to ensure a tight fit.
- After you have finished and the floor is dry, remove all of the tape and clean the floor using a hardwood flooring cleaner.
- Trim all of the floating floor underlayment and install (or re-install) any trims or moldings as may be needed. Remember to nail the moldings into the WALL, NOT the FLOOR.
- Inspect the floor closely, filling in any gaps with a hardwood filler or matching putty.
- If further construction is necessary after the hardwood is installed, you can protect the installed floor by laying a quality rosin paper or other paper that allows the floor to breathe, taping it to the baseboards. NEVER use plastic, solid rubber, or polyethylene film to cover the installed floor since they both trap moisture and will damage the installed hardwood (creating cupping or swelling issues).

## **Nail - Staple Installation**

### **25) Subfloor**

Minimum requirement for wood subfloors

- Minimum: APA Approved 5/8" (15mm) CDX Grade Plywood; minimum 40 lb. density
- Preferred: 3/4" (19mm) CDX Grade Plywood or 3/4" (23/32") OSB Underlayment Grade (PS2 Rated) on 16" center floor joists properly nailed

### **26) Expansion Space - Transition Trim**

All buildings and all flooring expands and contracts. Allow a minimum 1/2" expansion gap at all vertical surfaces (walls, cabinets, door frames, pipes, thresholds, etc.) For expansion gaps that will not be covered by wall base, fill gap with a flexible silicone caulking. Always allow a minimum 1/2" coverage under transition trim and wall base.

**\* Undercut door casings 1/16" higher than wood flooring assembly.**

**Contact your flooring retailer with questions or concerns regarding your flooring purchase.**



Transitions trim is designed to cover cut edges and cover expansion gaps.

Please note: Trim is coordinating, color and graining may not match flooring exactly.

## ***Nail - Staple Installation***

### ***27) Glue Assist (Optional)***

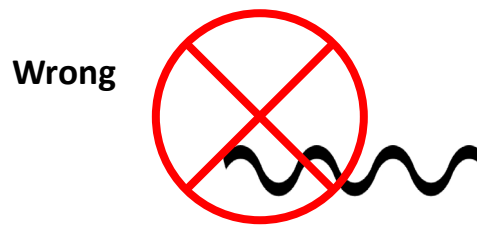
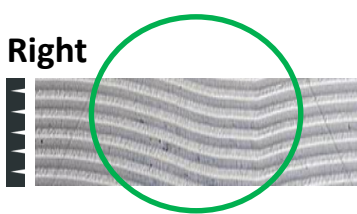
TAS Flooring recommends using a "Glue Assist" installation to reduce floor noises experienced in normal expansion, contraction and normal floor movement. . Glue assist can reduce floor noise from movement. TAS Flooring recommends WF Taylor Ironwood (or equal) adhesive. Choosing an adhesive that is easy to clean from the surface will assist with the installation. Glue assist does not alter the required fastening pattern.

#### ***IMPORTANT: Do not not apply a bead of adhesive in a serpentine application***

Spread a bands of adhesive either with the length of the plank or across the width of the plank spanning several rows (it is acceptable to butter the back of the plank with an adhesive layer.)

The glue assist application doesn't require complete adhesive coverage since the nails, cleats or staples will secure the flooring in place.

The adhesive can be applied using a 3/16"x1/4"x1/2" V notch trowel laying the planks into the wet adhesive then stapling or nailing the assembly



### ***28) Asphalt Saturated Felt Paper***

- Install 15 lb. Asphalt Saturated Felt or Resin Paper on the wood subfloor prior to installation; roll out the material in the same direction as the flooring will be installed; allowing the Felt Paper to extend 3"-4" up the walls.
- Position the Felt Paper so that the chalk line can be seen clearly (you may need to cut the Felt Paper back from the wall just enough to see it).
- Staple or tape at the comers to hold the Felt Paper in position.
- Overlap the Felt Paper by 1" and duct tape the seams. NOTE: While 15 lb. Asphalt Saturated Felt Paper is an excellent vapor barrier, it is NOT considered a moisture barrier. If a moisture barrier is needed (if floating or nailing over concrete using the screed/sleeper system), a 6 mil polyethylene film is required-with the edges overlapped 18" and taped.

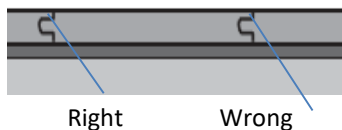
### ***29) Starter Row & End Row Fastening***

- Make sure to use the straightest, longest boards available when installing the first two rows.
- Line up the tongue of the first row with the starting point chalk line. The groove of the boards should be facing the starting wall.
- Using a pneumatic brad nailer, face-nail the groove side of the boards (first row only) 1/2" from the edge at 6" intervals and 1"-2" from each end; then at a 45° angle down through the nailing pocket on top of the tongue. Another option is to pre-drill the face-nail holes 1/2" from the groove edge of the first row, 1"-2" from each end, and at 6" intervals. Pre-drill at the same intervals at a 45° angle down through the nailing pocket on top of the tongue. Face-nail the groove side where it is pre-drilled. When the face-nailing is complete, blind-nail at a 45° angle using 4d or 6d nails. Countersink all nails to ensure the next boards install smoothly. Make sure to use a nail set to countersink the nails; failure to do so can damage the surface of the wood. Keep blind-nailing the following rows until the stapler can be used.

**Contact your flooring retailer with questions or concerns regarding your flooring purchase.**

### **30) Nail/Staple Gauge & Length**

- Use only 18 gauge resin coated narrow crown (1/4") staples or 18 gauge cleat nails
- Use staple/cleat length of 1-1/4" to 1-1/2"



### **31) Nail/Staple Fastening Pattern**

REMINDER: Take boards from multiple boxes while installing. Do not install 2 pieces from the same box in a row - mix the colors and shades while installing to get a more favorable overall look. Also, remember to stagger the end-joints of adjacent rows at least 10" to create a more appealing look for the floor.

Begin installing with several different rows at a time, securing each board with at least two fasteners. To avoid splitting the board.

Place fasteners 3"-4" apart along the body of the side joint and 1"-2" from the end joints. Make sure you press firmly together before fastening to eliminate gaps between the boards.

### **32) Nail/Staple Fastening Application PSI**

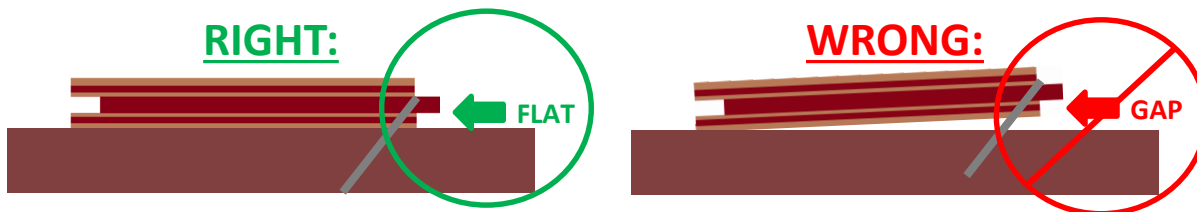
• Using improper adapters and pressure settings can cause severe damage to the flooring while using a nail/staple-down installation. Using the correct adapter and pressure will set the nail/staple correctly in the tongue. It is vital that the tool is adjusted properly so the nails/staples/cleats are being positioned at the proper angle. Air pressures set too high can cause damage to the tongue, putting blisters on the face of the flooring and making it difficult to install adjoining boards. A good test is to set the pressure initially at 70 PSI and adjust it until the staple properly sets in the tongue.

• The manufacturer is not responsible for damage caused by mechanical fasteners. If you need to remove a nail/staple/cleat that has gone in crooked, do not pull straight up from the tongue. This will damage the surface of the board. Instead, pull out the staple from the tongue at the front of the board with all pressure from the hammer's head directed into the subfloor.

### **33) Installation Nail/Staple Down**

#### **Important:**

Make sure that there is downward pressure on the board to insure it is in direct contact with the subfloor as you are fastening.



- Glue assist is recommended (see section 27)

Make sure to use the straightest, longest boards available when installing the first two rows.

• Line up the tongue of the first row with the starting point chalk line. The groove of the boards should be facing the starting wall.

• Using a pneumatic brad nailer, face-nail the groove side of the boards (first row only) 1/2" from the edge at 6" intervals and 1"-2" from each end; then at a 45° angle down through the nailing pocket on top of the tongue. Another option is to pre-drill the face-nail holes 1/2" from the groove edge of the first row, 1"-2" from each end, and at 6" intervals. Pre-drill at the same intervals at a 45° angle down through the nailing pocket on top of the tongue. Face-

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nail the groove side where it is pre-drilled. When the face-nailing is complete, blind-nail at a 45° angle using 4d or 6d nails. Countersink all nails to ensure the next boards install smoothly. Make sure to use a nail set to countersink the nails; failure to do so can damage the surface of the wood. Keep blind-nailing the following rows until the stapler can be used.

- As listed above in General Tips, distribute lengths, avoiding “H” patterns and other discernible patterns in adjacent runs. Stagger end joints of boards row to row a minimum of 10” for planks wider than 5” for better visual effects and structural stability on mechanically fastened installation.
- Make sure you are using the correct staple gun, adapter, fasteners, and PSI setting on the compressor.
- Practice installing on an extra piece of wood. Check for any damage to the board (surface damage, tongue damage, etc.). Make any adjustments and corrections BEFORE you start installing the rest of the floor. Once you have made your adjustments, destroy the “practice” board. REMINDER: Take boards from multiple boxes while installing. Do not install 2 pieces from the same box in a row - mix the colors and shades while installing to get a more favorable overall look. Also, remember to stagger the end-joints of adjacent rows at least 10” to create a more appealing look for the floor. • Begin installing with several different rows at a time, securing each board with at least two fasteners. To avoid splitting the board, put the fasteners 3”-4” apart and 1”-2” from the ends. Make sure you press firmly together before fastening to eliminate gaps between the boards.
- The last one or two rows will need to be installed similar to the first two rows. They will need to be face-nailed where blind-nailing is not possible. Brad-nail or pre-drill and face-nail on the tongue side matching the nailing pattern used in the first row. • The final row should be ripped to size and face-nailed. If it is less than 1” wide, it should be glued to the previous row BEFORE that row is installed and the two joined pieces should be face-nailed as one board.

### **34) Floor Repair**

If the floor becomes scratched or dinged, it can be repaired with a putty, filler, or touch-up kit. If a board is severely damaged, it may need to be replaced, which can be done by a qualified flooring technician.

### **35) Effects of Seasonals On Hardwood Floors**

Once the floor is installed it is critical to keep it well maintained. The manufacturer is not responsible for improper maintenance of the floor. Wood floors will be slightly affected by varying levels of humidity within your building. To make sure the floors are protected for as long as possible, it is VITAL for you to keep the relative humidity levels between 30% - 50%. Below are some recommendations on how to achieve that in the different seasons: Wet/Humid (wood expands): Heaters are not generally used during these months. Therefore the floor holds in the humidity and expands. To maintain a proper humidity level, use a dehumidifier air conditioner. You can also turn on your heater every once in a while during the summer months-this will help lower the humidity in the building. Make sure the expansion space is not blocked in any way! Dry (wood contracts/shrinks): Wood-burning stoves and electric heating systems are used a lot during winter months-creating very dry conditions indoors. The low humidity causes the wood to contract and shrink-leaving gaps between individual boards. To prevent this, use a humidifier to keep the humidity level between 35% - 55%.

### **36) Floor Protection**

- Allow adhesive to set up before allowing traffic onto the installation, light traffic 24 hours, heavy traffic 72 hours.
- If other trades are working in the installation area, protect flooring with an approved breathable floor protection material such as a builder board or reinforced 60lb Kraft paper. Wait a minimum of 24 hours before applying floor protection.
- Wait 7 days before thoroughly cleaning floor to allow adhesive to set up.
- Always use chair pads under rolling caster chairs and chair leg protectors, minimum of 1-1/2” diameter, under furniture legs

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### **37) Maintenance**

#### **Cleaner**

- Always use a neutral pH cleaner such as WF Taylor Fresh Floors.
- Never flood floor with cleaner, damp mop only.

#### **Initial Maintenance**

- Wait 7 days before a complete cleaning of the surface
- Allow flooring to dry completely prior to foot traffic

#### **Daily & Weekly Maintenance**

- Sweep, dust mop or vacuum the floor as needed to remove loose dirt and grit. Do not use a vacuum with bristles or a beater bar.
- Clean liquid spills immediately.
- Damp mop (do not flood floor) as needed

#### **Preventative Maintenance**

- Chair pads are required under roller castor chairs
- Furniture leg protectors, minimum 1.5" diameter, are required under all furniture legs.
- Use protective boards when sliding heavy furniture across flooring.
- Never apply rubber mats directly on top of vinyl flooring.
- Place walk off mats outside entry doors to prevent dirt and sand from entering into the installation.
- Protect flooring from direct sunlight with window and glass door coverings to prevent fading.

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