

Mohawk Locking Strand Bamboo Flooring with Uniclic Technology

Float and Direct Glue Installation Instructions

Check Mohawkflooring.com for a copy of our most recent installation instructions before beginning installation.

Mohawk's Locking Strand Bamboo Flooring can be installed over most properly prepared subfloors and are engineered to be dimensionally stable, making them suitable for installation on or above all grade levels where moisture conditions do not exist. See all information and installation guidelines below or contact Mohawk Technical Services at 888-387-9881,



Caution: Wood Dust

Cutting, sanding or machining wood products produces *wood dust*. While wood products are not hazardous under 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.

PROPOSITION 65 WARNING: This product produces *wood dust* when cut, sanded or machined. Wood dust is considered a carcinogen by the State of California.

Precautionary Measures: Airborne wood dust can cause respiratory, skin and eye irritation. 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.

To request a Material Safety Data Sheet, call 888-387-9881, Option 3

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 cutback adhesives used to install them may contain either asbestos fibers and/or crystalline silica. **The products in this carton DO NOT contain asbestos or crystalline silica.** Avoid creating dust. Inhalation of asbestos or crystalline dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institute (RFCI) publication "Recommended Work Practices for Removal of Resilient Floor Coverings" for detailed information and instructions on removing all resilient covering structures.

INSTALLER / OWNER RESPONSIBILITY:

It is the responsibility of the installer and owner to ensure that job site environmental, sub-floor and subsurface conditions involved meet or exceed all requirements as outlined in Mohawk's installation instructions prior to installation. Mohawk declines all responsibility for product performance or installation failure due to sub-floor, substrate or environmental deficiencies or jobsite conditions.

All work involving water or moisture (plumbing, masonry, painting, plastering) must be completed prior to flooring being delivered. Building envelope must be complete and exterior doors and windows installed. Exterior grading and gutter downspouts should be completed and permanent HVAC systems in operation for 14 days prior to flooring being delivered to job site. Measures should be taken to protect floors from other trade work. **Do not cover floors 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.** The floor should be thoroughly cleaned before covering to remove grit and debris that would damage the finish. The floor must be completely covered to eliminate uneven ambering from exposure to UV light.

Mohawk requires Locking Strand Bamboo products acclimate for a minimum of 7 days (168 hours) prior to installation. Acclimation allows flooring to achieve equilibrium moisture content (EMC) with the installation environment. All strand bamboo flooring continually expands and contracts until it reaches moisture equilibrium with the environment in which it's installed. As with all strand bamboo flooring, expansion and contraction will be minimized if climate control is consistently maintained year round. **This is especially important with tropical species, because denser woods experience more significant shrinkage in low moisture / low humidity environments.**

Room temperature should be 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.

Building interiors are affected by two distinct humidity seasons – Heating and Non-Heating. Care should be taken to maintain humidity levels between 35-55%. Mohawk warranties do not cover natural expansion and contraction which results in separation between planks, or damage caused by excessively low or high humidity.

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, dehumidifier or by turning on your heating system periodically during the summer months.

Do not install in full bathrooms, powder rooms, or over radiant heat floors.

Examine flooring for color, finish and quality prior to installation. If material is unacceptable, contact the seller immediately. Bamboo is a natural product and contains characteristics such as variations in color, tone and graining. Flooring is manufactured in accordance with industry standards, which allows manufacturing and natural defect tolerances up to 5% of the total installation. Installer should work from several cartons at the same time to ensure good color and shade blend. Installer should not install undesirable pieces.

Flooring warranties DO NOT cover materials with visible defects once they are installed. Installer and Owner are responsible for final inspection of flooring manufacture, grade and finish. Purchase an additional 5% of flooring to allow for cuts and an additional 10% if installing diagonally.

WARRANTY NOTE: Installer should provide owner with one carton end label from product installed for warranty purposes. Owner should retain carton end label and copy of invoice for their records. Excess flooring should be retained and stored in a climate controlled area for future repairs in the event planks are damaged.

The use of stain, filler or putty for minor correction is considered a normal practice and a routine part of installation.

TOOLS:

BASIC TOOLS AND ACCESSORIES:

Broom	Terry Cloth Towels
Coordinating transition strips or molding	Mineral Spirits
Coordinating stain, filler or putty	Hand or Electric Jam Saw
Chalk line	Power Circular Saw or Miter Saw
Thick felt or rubber pads	Wood/Concrete Moisture Meter or Both
Mohawk Uniclic Tapping Block	Safety Glasses
½ Inch Wood Spacers	Straight Edge
Table Saw	Tape Measure
Carpenter's Square	Pry Bar or Trim Puller
Utility Knife	Pencil
Moisture Resistant Foam Underlayment	Pull Bar
Mohawk Hardwood & Laminate Flooring Cleaner	
Mohawk ProTack M908 Urethane Adhesive	Carbide Blades
Mohawk M901 ProTech Moisture Membrane	
Mohawk M959 UltraTack 2n1 Sealer/Adhesive	
For Floating Installation: Use Mohawk's Silent Guard, RealSound or Moisture Guard Underlayment, Mohawk Performance Accessories Underlayments or products that meet or exceed these products' specifications. The use of accessories other than Mohawk's might cause damage to the Mohawk Locking Strand Bamboo	

Flooring. Therefore, we recommend products specifically designed and tested for use with Mohawk Locking Strand Bamboo Flooring.

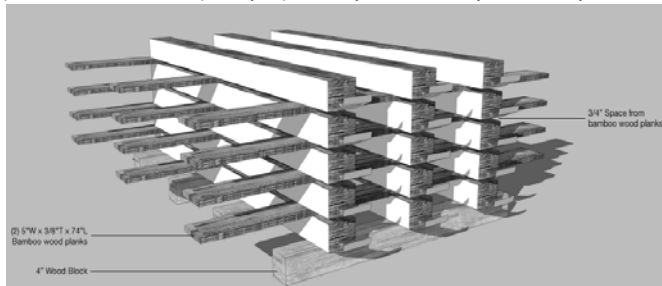
Direct Glue Installation - On or Above Grade Only: Use Mohawk's M959 UltraTack 2n1 Urethane Moisture Retarder/Sealer or Mohawk's ProTack M908 Urethane Adhesive, with a 1/4" x 3/16" x 1/2" V Notch Trowel for adhesive application. For Moisture Membrane Application; Use Mohawk's ProTech M901 Urethane Moisture Membrane, with a 5/32" x 3/16" V Notch Trowel for moisture retarder membrane application or products that meet or exceed Mohawk's adhesive and sealer specifications. **NEVER USE A WATER BASED ADHESIVE TO INSTALL MOHAWK'S LOCKING STRAND BAMBOO FLOORING.** When installing on concrete subfloors, trowels should be replaced every 3000 ft.

STORAGE AND HANDLING:

Flooring must be delivered and stored at the jobsite a minimum of 7 days (168 hours) prior to installation to allow the product to acclimate from prior transport or storage conditions.

PLEASE NOTE: Acclimation will progress more slowly with Strand Woven Bamboo than with most hardwoods due to its extreme density. (see page 7 for guidance on how to determine moisture content)

Flooring cartons must be opened and all plastic packaging material removed and the planks stacked in a tower formation with at least a four inch air space under cartons as pictured below. This is especially important if you live in a very humid or dry climate.



NOTE: Large changes to subfloor moisture content or changes to relative humidity outside of the approved range of 35-55% may cause bamboo flooring to cup, gap, buckle, or otherwise change dimensionally. Strand Bamboo Flooring must be installed into a relative humidity controlled environment at the environmental conditions specified as pre-installation requirements (Room temperature should be 60 – 80° F, with relative humidity between 35 – 55%) must be maintained for the life of the product..

PRE-INSTALLATION & JOB SITE CONDITIONS

SUBFLOOR REQUIREMENTS:

The following subfloor recommendations are intended to complement the installation of Locking Strand Bamboo flooring as an interior finish. Locking Strand Bamboo 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 RECOMMENDATIONS FOR ALL INSTALLATIONS:

Locking Strand Bamboo Floors may be installed over any approved structurally sound subfloor that is flat, clean and dry on or above grade level. Do not install in full bathrooms or powder rooms.

All subfloors should be:

- **CLEAN** – Subfloor must be clean and free of dirt, curing compounds, drywall mud, wax, paint, oil, sealers, adhesives and other debris. These may be removed mechanically.
- **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 base compound.
- **DRY** – Select the appropriate moisture indicator test specifically designed for use with wood or concrete subfloors. Test and record moisture content results.
- **STRUCTURALLY SOUND** – Nail or screw any areas that are loose or 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 subflooring or underlayment.

Building codes establish requirements for structural support components of flooring systems which may not provide adequate rigidity and support for proper installation and performance of a Locking Strand Bamboo floor. Whenever possible, install flooring perpendicular to the floor joists for maximum stability.

NOTE: Avoid subfloors with excessive vertical movement or deflection because subfloor movement will telegraph through to the finished installation. Indications of excessive deflection are uneven finish wear, fastener release, squeaking, compromised or damaged locking systems, sectional contours such as bowing or dipping in floors and uneven flooring material. Nail or screw subfloor panels to secure boards with excessive vertical movement or deflection. If the subfloor has excessive vertical movement (deflection) before installation of the flooring, it is likely it will do so after installation of the flooring is complete. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.

Subfloor moisture check

Note: To increase reliability, moisture testing should be performed after the HVAC system has been in operation for a minimum of 14 days. Excess moisture on any flooring substrate if not identified and corrected prior to installation will cause floor covering failure. Warranties DO NOT cover products installed over improperly prepared subfloors, substrates or environmental related deficiencies.

Acceptable conditions for above and on grade applications are:

Concrete Subfloor Moisture Content

On and above 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 and on 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 In-situ Probes (ASTM F 2170-02) or
- No greater than 5% on a Tramex Concrete Moisture Encounter meter or equivalent concrete moisture meter.

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

NOTE:

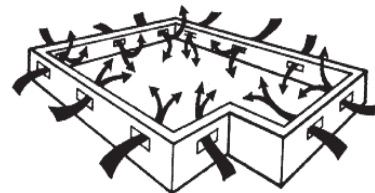
New concrete slabs require a minimum of 60 days drying time before covering them with a wood floor. (Must be fully cured) Although initial moisture tests may indicate a dry slab, the moisture content of slabs may increase due to seasonal fluctuation or weather patterns. New construction should have a minimum 10 mil poly membrane between the ground and concrete.

Wood Subfloor Moisture Content

Test both wood subfloor and Locking Strand Bamboo flooring for moisture content using a reliable moisture meter. The subfloor material must not exceed 12% moisture content. The difference between the moisture content of the wood subfloor and the hardwood flooring must not exceed 4%.

If subfloor moisture readings exceed recommended levels for concrete or wood, steps MUST be taken to reduce subfloor moisture. Steps could include waiting for subfloors to dry to acceptable levels or using an appropriate moisture barrier such as Mohawk's ProTech M901 Urethane Moisture Membrane.

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 earth. Crawl space 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.



To correct any subfloor conditions concerning moisture, either wait until the subfloor dries to meet specifications or use an appropriate moisture barrier. For more information concerning moisture conditions, contact Mohawk's Technical Service Department at 888-387-9881 Option 3.

Concrete Subfloor

Floating Installation

Locking Strand Bamboo may be installed as a floating floor over properly cured Concrete and Light Weight Concrete.

Glue Down Installation

Strand Bamboo CAN be glued down on fully cured concrete that has a minimum of 2500 psi compressive strength. See instruction for proper glue down installation over concrete.

Lightweight concrete

Strand Bamboo CAN NOT be glued down over Light Weight Concrete. Light Weight Concrete has a dry density of 100 pounds or less per cubic foot, and/or less than 2500 psi compressive strength

Wood Subfloors

NOTE: As with many other interior finish products, modification of existing structural components may be required for a successful installation.

Solid Wood Subfloors - 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 glue-down applications add 3/8" (9.5 mm) approved floor panel underlayment.

Existing Wood Flooring – Direct Glue or Floating Installations

• **DIRECT GLUE** -Existing engineered flooring must be well bonded/fastened. Do not apply Mohawk's M901 Moisture Membrane to strip wood flooring, self-stick tile, sheet vinyl, old adhesives, metal, linoleum, laminate or particleboard. Existing hardwood flooring must be covered with 3/8" (9.5 mm) approved underlayment and fastened as required. **Do not install over solid flooring attached directly to the concrete.**

• **FLOATING** - Wood subfloors should be well nailed or secured with screws. Nails should be ring shank and screws need to be counter sunk. The wood subfloor needs to be structurally sound (meaning subfloors 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 subfloor, allow 1/8" (3 mm) expansion space between each panel. If spacing is inadequate, cut in with a circular saw. Do not cut in expansion space on tongue and groove panels.

When installing parallel to the floor joists it may be necessary to increase rigidity of the structural subfloor 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 subfloor [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 subfloor, the panels must be tongue and groove and installed sealed side down. Minimum thickness to be 23/32" (18 mm) thick when used as a subfloor or 3/8" (9.5 mm) as floor panel underlayment.
- **Waferboard 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 subfloor and 3/8" (9.5 mm) thick when used as floor panel underlayment.
- **Particleboard:** Must be a minimum 40-lb. density, stamped underlayment grade and 3/4" (19 mm) thick. (Floating installation only)

Mohawk's M908 ProTack Urethane Adhesive is the recommended wood flooring adhesive and may be used for above, and on grade applications and on all common substrates except particleboard, sheet vinyl or resilient tile. Mohawk Strand Bamboo should not be installed below grade.

Sub-floors other than wood or concrete:

For Direct Glue Down instructions on subfloors other than wood or concrete, contact Mohawk Technical Services at 888-387-9881, Option 3.

Do not install Mohawk's Locking Strand Bamboo over radiant heat floors.

Terrazzo and Cork or hard surfaces that are dry, structurally sound and level, are suitable as a sub-floor. As above, the surface must be sound, tight and free of paint, oil, existing adhesives, wax, grease and dirt. Terrazzo and ceramic tile must be scuffed to assure adhesion.

Warning! Do not sand existing resilient tile, sheet flooring, backing, or felt linings. These products may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state and federal laws for handling hazardous material before attempting the removal of these floors.

Direct Glue Installation On or Above Grade Only: Make sure the floor covering materials are well bonded to the subfloor/underlayment with full spread adhesive and no more than two layers thick, not to exceed 3/16" (5 mm).

For sheet vinyl, resilient tiles, strip flooring, broken tiles or floors in poor condition, cover by installing an approved underlayment. Approved underlayment is 3/8" (9.5 mm) wood or wood composite material.

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.

Before You Start

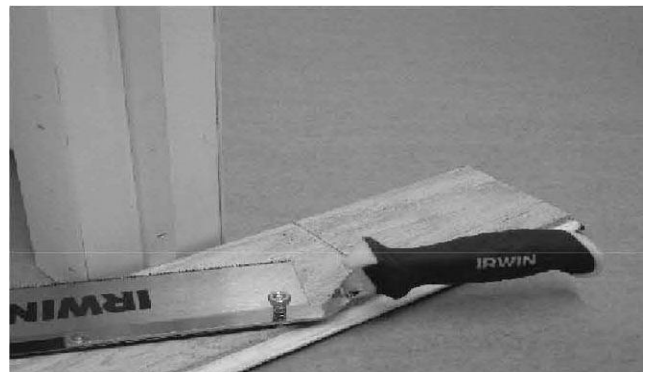
CAUTION: DO NOT BEGIN A FLOOR INSTALLATION UNTIL THE FLOORING HAS BEEN ADEQUATELY ACCLIMATED AS DESCRIBED IN THE STORAGE AND HANDLING SECTION OF THIS GUIDE.

- Plan your layout and determine the direction of the installation in the room. Planks installed parallel to windows accent the flooring best.
- Blending of Cartons: To achieve a uniform installation appearance, preselect and set aside planks that blend best with all trims and moldings. Install these planks next to best blended moldings.
- Remove all wall mounted moldings such as base and quarter round.
- Floor should be installed blending planks from several cartons at the same time to ensure good color and shade mixture throughout the installation.
- Be attentive to staggering the ends of the planks at least 10"-12" (10-15 cm) when possible, in adjacent rows.
- The floating floor underlayment already has double-sided tape for ease of taping the precut overlapping seams. If a non-adhesive underlayment is used, tape all seams with moisture resistant tape.
- Do not install in areas of high moisture such as bathrooms and powder rooms.

NOTE: DO NOT USE A RUBBER Mallet to install flooring. Striking the surface with a rubber mallet may "burn" the finish causing irreparable damage.

PREPARATION:

Undercut Door Casings: 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 use a power jamb saw set at the correct height. Remove all moldings and wall-base, and undercut all door casings back to the vertical wall stud.



FLOATING INSTALLATION

Underlayment:

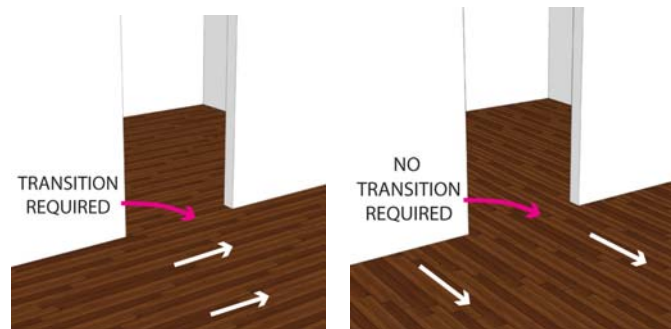
Use Mohawk's SilentGUARD, MoistureGUARD, RealSound or Mohawk Performance Accessories Underlayments. Underlayment requirements are very critical to a floating installation. Excessive pad compression or compaction is a common cause of seam failure.

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 being installed. For 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 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 and Contraction Space:

Both an expansion and contraction space of at least 1/2 inch must be maintained around the perimeter of the room, all pipes, counters, cabinets, fireplace hearths, doorframes and any other fixed vertical objects in the room to allow for the normal expansion and contraction of the floor. To accomplish this, undercut or raise the base boards or undercut drywall to allow for flooring expansion under the base board and install quarter round or other appropriate trim to allow for contraction of the floor. Cabinetry, appliances and other fixed objects may be raised by placing them atop 5/8" plywood sheathing that has been undersized by 1/2" to allow for expansion. Door jams must likewise be undercut 1" to allow for floor movement (see the Preparation Section of this guide).

Transition Pieces: – Floating floors require that individual sections be able to expand and contract independently in response to changes in temperature and relative humidity. Properly installed transitions (T-moldings*) are required in doorways, between adjoining rooms and, between rooms and adjoining hallways to allow individual floor sections to expand and contract independently. An exception would be adjoining rooms with archways or other large wall openings when the boards are installed through the archway/opening, rather than across the archway/opening. See Illustration.



*Installation of T-molding will create the required expansion and contraction gap described.

The maximum width of any section (across the boards) is 26 feet, and the maximum length (with the board length) is 33 feet.

NOTE: Do not nail, screw, or glue the floor to the substrate. Do not caulk around or attach anything to the floor as these fasteners will interfere with expansion and contraction.

Getting Started:

Starting Off - The First Three Rows

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 tongue side facing the wall (with the tongue removed), which enables you to best work with the Uniclic system. The first row starts with a full length plank; working from left to right will be required when installing Locking Strand Bamboo flooring. Slide the end groove of the plank being installed into the end tongue of the plank 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)

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.

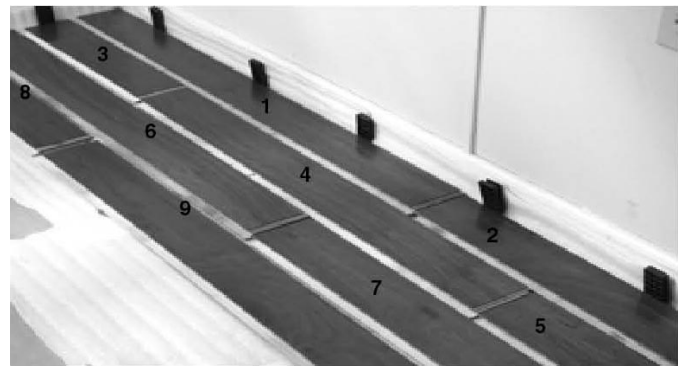


FIGURE 3

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 Mohawk Uniclic 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. The numbered process is shown in Figure 3.

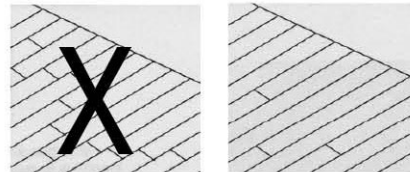


Figure 2A Figure 1A

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

NOTE: Another way to achieve a firm starting point is to screw down a straight length of 1"x3" lumber, or another straight, firm material along the full length

of the starter wall. This is set to the outside edge the distance of the width of your end planks plus the 1/2" expansion. You will be removing this after the rest of the floor is installed and the space filled and ripped to size the flooring.

The Mohawk Uniclic Tapping Block square edge tapping block 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 going together, check to see if the planks are moving against the wall with the strikes. If so, adjust shims to firm up or use the screw down starter row method.

FIGURE 4

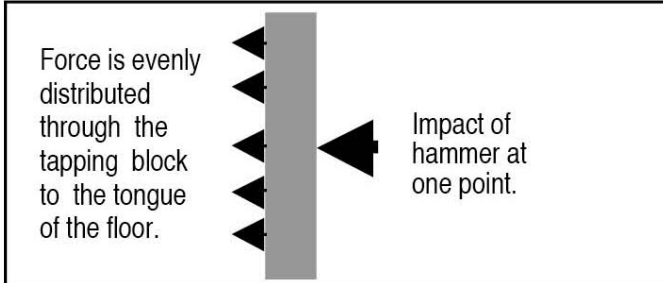


FIGURE 5



Tapping the planks together

When tapping the planks together the following process works best: 1) Using the Uniclic Tapping Block, lightly tap each piece for the first 3-4 rows. After the first 3-4 rows, you should only need the Uniclic 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)

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) When you have the plank in place, lower the plank while pushing in until plank locks in place. The planks should lock into place at this point. (Figure 7)

Your initial rows, if you are not against a firm starting structure, it may seem more difficult to engage than the preceding rows.

FIGURE 6

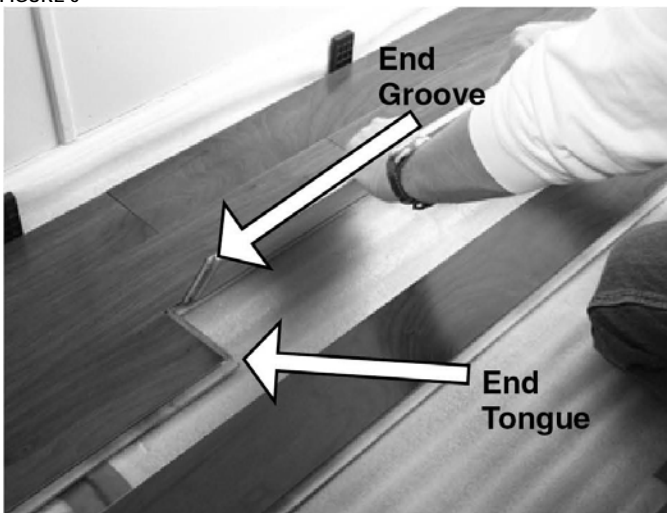


FIGURE 7



FIGURE 8



GLUE DOWN INSTALLATION GUIDELINES

Mohawk's Locking Strand Bamboo is suitable for direct glue installation **on or above grade only**. Recommended adhesives include ProTech M901 Urethane Moisture Membrane applied before installing with Mohawk's ProTack M908 Urethane Adhesive or use Mohawk's UltraTack 2n1 M959 per instructions. **NEVER USE A WATER BASED ADHESIVE TO INSTALL MOHAWK LOCKING STRAND BAMBOO.**

Always seal concrete with a moisture membrane before glue down installation.

Use of these or products with equal or greater specifications are necessary for warranty compliance.

INSTALLING PROTECH M901 MEMBRANE:

ProTech M901 Urethane Moisture Membrane: A trowel-applied membrane that improves the long-term performance of glue-down flooring installations over concrete substrates.

TYPICAL TROWEL AND APPROXIMATE COVERAGE*

5/32" x 3/16" 40 to 45 sq. ft./U.S. gal.

* Coverage may vary depending on substrate conditions.

USES

- For protection from concrete moisture (up to 25 lbs. MVER)
- For reducing sound transfer in multi-story buildings
- For improving flexibility and increasing bond strength of installations

Note: Do not apply over light-weight concrete, self-stick tile, sheet vinyl, old adhesives, metal, linoleum, laminate, particleboard or strip wood subfloors without first covering with an approved wood or wood composite underlayment. Air temperature must be between 50°F and 100°F for applying ProTech M901 Urethane Moisture Membrane

APPLICATION

1. Regulate temperature and humidity 72 hours before, during and after installation.
2. Complete undercuts before applying ProTtech M901. Include the additional 1/16" height of ProTtech M901 when calculating undercuts.
3. Pour ProTtech M901 onto substrate (no mixing necessary).
4. Using the notched side of a 5/32" x 3/16" V-notched trowel, spread ProTtech M901 evenly. Product will flatten out naturally.
5. Allow to dry completely (12 to 16 hours).
6. Correct any missed spots and voids with trowel's flat side.
7. Allow repair areas to dry completely.
8. While membrane is fresh, clean tools using a urethane adhesive cleaner or mineral spirits. ProTtech M901 is extremely difficult to remove when cured.
9. Install glue-down flooring using ProTtech M908 adhesive.

NOTES

- Product must be used in its entirety when opened. Lid cannot be re-sealed.
- Temperature and humidity will affect the curing time. The higher the temperature and humidity, the faster the cure.

M959 UltraTack 2-N-1 Urethane Adhesive / Sealer:

M959 UltraTack 2-N-1 can be used by itself as a direct bonding material or in a single-coat application method that provides superior bond and moisture vapor emission control on concrete slabs (up to 15 lbs. in MVER or concrete relative humidity of no greater than 85%).

TYPICAL TROWEL AND APPROXIMATE COVERAGE*

As an adhesive: 5/16" x 1/4" x 1/2" V notch trowel: 45 to 55 sq. ft./U.S. gal.

As a moisture membrane: trowel clip-on inside bucket: 30 – 40 sq. ft./U.S. gal

* Coverage may vary depending on substrate conditions.

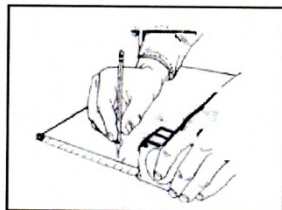
NOTES

- Product must be used in its entirety when opened. Lid cannot be re-sealed.
- Temperature and humidity will affect the curing time. The higher the temperature and humidity, the faster the cure.

Getting Started Direct Glue:

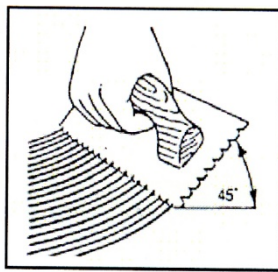
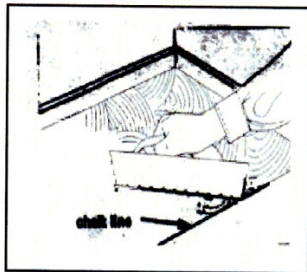
Step 1

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 and snap your chalk line.



Step 2

Spread Mohawk's Pro-Tack M908 Urethane 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° to get the proper spread of adhesive applied to the sub-floor, which will produce a proper and permanent bond. Improper bonding can cause loose or hollow spots.



Note: Change the trowel every 2000 to 3000 square feet due to wear down of the notches. This assures you always get the proper spread of adhesive.

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), or 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.

Note: The planks along the wall may have to be scribed and cut to fit in order to maintain a consistent expansion space since most walls are not straight. Try to maintain at least 2" on the scribed plank.

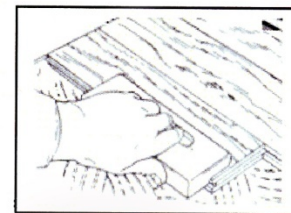
Step 4

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 Mohawk's Uniclic 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.



Note: Never work on top of the flooring when installing. If you must work on top of the newly laid flooring use a kneeling board.

Secure your starter rows with a straight edge (2x4's). 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 subfloor. Remember planks closest to the wall may have to be scribed and cut to fit due to irregularities along the wall. When using Mohawk's Pro-Tack M908 adhesive it is not necessary to roll the floor.



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 Locking Strand Bamboo flooring for minor corrections or areas where brad nails were used in the trim or the flooring. Clean the finished floor with Mohawk's FloorCare Essentials Hardwood & Laminate floor cleaner.

Trim excess underlayment (floating installation only) and install or re-install 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 terry 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 and may damage the finish. 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, to 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.

DETERMINING THE MOISTURE CONTENT OF STRAND WOVEN BAMBOO

When checking the moisture content of Strand Woven Bamboo, pin-type moisture meters give misleading readings because the resin content of the material alters its electrical conductivity. Non-intrusive (scanner type) surface meters tend to give slightly more accurate readings than pin-type meters but they are likewise unreliable and should be dis-regarded. - Go to www.Mohawk.com/instructions. See [Direction on checking moisture content](#).

prevent excessive abuse the use of strategically placed mats and area rugs as well as floor protectors on chair and table legs are a must.

WARRANTIES

A copy of the Warranty may be obtained by contacting your retailer or the Mohawk Technical Service Department at 888-387-9881 option 3.

MAINTENANCE

Mohawk Locking Strand Bamboo Floors are very easily maintained. No wax, no mess. Simply use Mohawk's FloorCare Essentials Hardwood & Laminate floor cleaner and a terry cloth flooring mop/MicroFiber

STEP ONE: Sweep your floor to remove any particles that could scratch your floor.

Warning: Vacuums with a beater bar or power rotary brush head can damage a wood floor and should never be used.

STEP TWO: Apply the approved Mohawk Hardwood flooring cleaner directly to the terry cloth flooring mop or MicroFiber, not to the floor!

STEP THREE: Use a back and forth motion with the mop. When the terry cloth or MicroFiber cover becomes soiled, simply replace it with a clean one. Cleaning the floor with a soiled cover could cause streaking. The covers are re-usable so simply throw the cover in the wash and dry it as you would any towel. **DO NOT USE FABRIC SOFTENER** when washing terry cloth covers.

Tips & Warnings:

- Sweep regularly, with a soft bristle broom.
- Remove spills promptly and use Mohawk's FloorCare Essentials Hardwood & Laminate Floor Cleaner and a clean white cloth.
- 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.
- 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 Strand Bamboo floors. This will force moisture into the Strand Bamboo and cause damage to your flooring.

Exterior and interior walk off mats should be used at all exterior entrances 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. Do not use mats or under mat cushions constructed of rubber or PVC. Instead use urethane backed products.

Hardwoods react to sunlight

Bamboo contains certain types of acids in their cellular structure. With exposure to sunlight these acids begin to amber. The color change is referred to as patina. The bamboo will reach its own natural warmth and patina level and stop ambering. The amount of patina is directly related to the species, amount of acids and the level of sunlight. 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.

Locking Strand Bamboo flooring will scratch and dent

With today's active lifestyles it is important to note that bamboo flooring can, and will, scratch and dent. See Tips & Warnings for protecting your bamboo floor. In order to