

## GENERAL RECOMMENDATIONS

All of the General Installation Guidelines regarding storage, job site conditions, including climatic and structural requirements found in Mannington's Professional Installation Guide are applicable to Mannington Hardwood Floors. Review and consider these requirements before proceeding with the installation.

## PRODUCT INSPECTION

Wood is a natural product, containing natural variations in color, tone, and grain. Before any Mannington engineered wood flooring leaves our plant, each plank goes through numerous inspection stations. A slight color variation between planks, however, is to be expected in a natural wood floor. Mannington cannot guarantee against natural variation in each plank, nor minor differences between samples and the color of the floor. With Mannington, you're protected by our exclusive Pre-Installation Limited Warranty. Return any planks you are not satisfied with, uncut, BEFORE installation and we'll replace them. No questions asked.

We urge you to inspect for color, finish, and graining BEFORE installation. Care should be taken during installation to remove or repair particular characteristics you do not desire. We suggest you use cut planks as starter strips to begin each new row and to "rack" the flooring to ensure a random appearance.

Furthermore, we recommend that you examine cartons to determine those that contain random length planks and those that contain full length planks. Plan the layout accordingly so that a consistency is maintained throughout the installation

**NOTE: Mannington Hardwood Floors accepts no responsibility for costs incurred when a floor with visible defects has been installed.**

## JOBSITE CONDITIONS

In addition to the general instructions, Mannington Hardwood has some category specific requirements

Mannington engineered wood flooring does not need to be acclimated to the jobsite unless the flooring will be transported from one extreme temperature or humidity into another. If there is a severe temperature or humidity difference, make sure to condition the cartons of wood flooring and UltraSpread Mastic™ adhesive, if being used, 24 hours before the installation.

## TEMPERATURE AND HUMIDITY REQUIREMENTS

As a general rule, the job site in a wood flooring installation must be climate controlled. If you are transporting wood flooring from one extreme temperature or humidity into another, however, make sure to condition the cartons 24 hours before installation, 48 hours for bamboo. Wood flooring performs best in climate controlled interior environments. A permanent HVAC unit should be operational in order to provide consistent room temperature between 60 and 80 degrees Fahrenheit (16°-27°) and a humidity level of 35% to 55%. (Temperature and humidity should be controlled for the life of the flooring.)

UltraSpread Mastic has a minimum working temperature of 65°F. Never use UltraSpread Mastic below this requirement. Open time for UltraSpread Mastic is affected by temperature and humidity. As a general rule, the higher the temperature and humidity, the shorter the open time.

## MOISTURE REQUIREMENTS

Wood subfloor moisture content must never exceed 14%.moisture content when measured with a dependable moisture meter. The difference between the wood subfloor system moisture content and that of the hard wood flooring must not be greater than 4%. The moisture content of the bamboo flooring and the wood subfloor must never be greater than 2% of each other.

**Concrete subfloors** must be visibly dry, with no history of or show no evidence of excessive moisture vapor transmission. The most common quantitative moisture test is the Anhydrous Calcium Chloride test. This test must be performed in accordance with ASTM F 1869, "Standard Test Method for Measuring Moisture Vapor Emissions Rate of Concrete Subfloor Using Anhydrous Calcium Chloride". According to the ASTM the moisture emissions from the concrete floor shall not exceed 5 lbs/1000 sq ft/ 24 hours.

## MOISTURE REQUIREMENTS continued

Another quantitative moisture test method is the In-Situ Relative Humidity test. This test measures the relative humidity level within the concrete slab. This test must be performed in accordance with ASTM F 2170-02. The relative humidity of the slab must not exceed 75%. If the relative humidity in the slab exceeds 75%

**DO NOT INSTALL ANY MANNINGTON HARDWOOD FLOOR UNTIL THE ABOVE PARAMETERS ARE MET.**

## WOOD SUBFLOORS

All wood subfloors must be structurally sound, dry, at least 3/4" in thickness, solidly fastened to appropriately spaced floor joists, and in compliance with all local building codes. First, make sure subfloor is dry. Subfloor wood moisture content cannot exceed 14% prior to installation, for bamboo it can not exceed 10%. To determine wood moisture content use a quality moisture meter. Next, determine if subfloor is structurally sound; both floor joist spacing and subfloor panel selection must be considered. Use the following requirements as a guide:

- Planks may be installed (stapled, nailed, glued, or floated) to a single layer of 3/4" thick, tongue-and-groove plywood or 3/4" structural grade oriented strand board (OSB) substrate over appropriately spaced floor joists.
- If the subfloor is plywood or OSB less than 3/4" thick, add a second cross layer for strength and stability (minimum 5/16" thick to total 1" in thickness). To reduce the possibility of squeaking, install the underlayment per the manufacturer's guidelines.
- 19.2" and 24" on center joist spacing may be acceptable if the subfloor system is designed in accordance with local building codes and is free of deflect on.

**CAUTION:** Wood substrates directly fastened to concrete are not satisfactory for the installation of wood floor coverings. This nonventilated construction practice will result in deterioration of the wood substrate system and may cause problems such as underlayment joint telegraphing. Mannington will accept no claims regarding performance of our wood products installed over this subfloor construction.

**NOTE: Do not staple or nail down Mannington engineered wood flooring over particleboard subfloors.**

## CONCRETE SUBFLOORS

All concrete subfloor systems must meet or exceed local building code specifications. For concrete slabs that are on- or below-grade it is recommended that they are constructed so that ground water vapor cannot penetrate. Suspended, above-grade concrete subfloors often require extended drying time to lose initial moisture.. Curing and drying time will vary depending on the type of concrete mix and the environment in which it is placed. New concrete slabs require a minimum of 6 weeks' drying time before covering them with a wood floor. You may install Mannington engineered hardwood floors over concrete subfloors when you are using Mannington UltraSpread Mastic (glue-down method) or Mannington MegaGlue™ adhesive (floating method) if the subfloor and installation meet all criteria contained within this document.

## STRUCTURAL REQUIREMENTS

The structural integrity of the jobsite is critical for a satisfactory wood installation. The type and method of construction, grade level, and flooring system components all impact the installation of wood flooring products. Many times local building codes establish only minimum requirements for flooring systems. These minimum requirements may not provide sufficient rigidity for successful installation and continued performance of wood flooring products. Subfloor must be clean. Remove all oil, dirt, grease, wax, sealers, paint, adhesives, or any other substance that would hinder installation.

Subfloor must be level to 1/4" per 10' span. To check, just stretch a 10' string or lay a 10' straightedge over subfloor. If the subfloor dips or crowns 1/4" or more in the span, it must be leveled. Use a latex underlayment material such as Mannington MVP 2023 to level low areas in the subfloor. If the floor has a crown or rise, level it by sanding or grinding to meet 1/4" specifications.

## STRUCTURAL REQUIREMENTS continued

There are additional concerns an installer must take into consideration for each different type of subfloor (wood, concrete, lightweight concrete, etc.) other than the requirements stated above.. You may find existing subfloors that do not meet industry standards, in that case, do not precede until repair or replacement of the subfloor is completed so your hardwood floor installation will be successful.

## BLEND CARTONS

To provide for a uniform appearance throughout the entire installation, open sufficient cartons to blend planks for both shade and length variations. Plank length can vary from 12" to 42". Make sure your work area is well-lit. Good visibility ensures that color is consistent and that visually defective planks are detected and removed. Please keep in mind; it is always a good idea to retain a few planks in case a repair is ever required.

## STAPLE-DOWN INSTALLATION

### REQUIREMENTS AND PROCEDURES

This fast and easy method uses our own Mannington Spotnails Floor Monster Pneumatic Stapler and exclusive Mannington Spotnails nylon-coated precision staples. The staple-down technique is compatible for all Mannington Hardwood products (except Bamboo and Tradewinds Collections) for use over plywood and structural OSB. The steps outlined in this section are also suitable for the nail-down method provided that a specifically designed tongue-and-groove engineered flooring nailer is used. The Mannington Spotnails Floor Monster Pneumatic Stapler comes complete with two adapters, Allen wrenches, and oil. For a successful installation you will need the tools listed below.

### SPECIAL TOOLS

- Mannington Spotnails Floor Monster Pneumatic Stapler SKU# FS4825W2
- 1/2", 9/16", and 3/8" Stapler Attachment (included with stapler)
- Mannington Spotnails Nylon-Coated Staples SKU# 4811PN-30M (5,000/box)
- Safety Glasses
- Compressor (with regulator)
- Tapping Block SKU# TPBK009X
- Power Drill

### SETUP AND USE OF MANNINGTON SPOTNAILS FLOOR MONSTER PNEUMATIC STAPLER

Inspect Equipment Prior To Use

- Become familiar with the tools and their operation, especially the pneumatic stapler. When used improperly, staples can damage wood flooring. Test the tools on scrap material first.
- Parts that engage the planks must have no sharp burrs that can scratch or damage the flooring, especially pre-finished surfaces.
- Make sure the tool's adapter seats properly in the tongue-and-groove of the flooring.
- Use the retaining feet of the adapter to make adjustments so that the plank is held securely against the subfloor.

**CAUTION:** Make certain the adapter size for the Mannington Spotnails Floor Monster Pneumatic Stapler correlates directly with the size of the product being installed. For instance, if you are installing 1/2" thick wood flooring, use the 1/2"-9/16" adapter.

**CAUTION:** Only use Mannington Spotnails 4811PN nylon-coated staples during staple-down installation with the Mannington Spotnails Floor Monster Stapler.

### FLOOR MONSTER SETUP

- Loosen screws on retaining feet.
- Using a scrap piece of flooring, test tool on subfloor and engage the adapter into tongue-and-groove.
- Slide retaining feet down until they make contact with plank.
- Tighten screws. (See illustration a.)
- Calibrate the compressor so staples are properly set in the nail pocket to avoid damaging the floor or squeaking.

## STAPLE-DOWN INSTALLATION continued

**NOTE:** If stapler is improperly set up, staples will not position correctly and may cause squeaking, crackling, and dimpling of the floor.

### COMPRESSOR SETUP

- With the correct adapter fastened, attach tool to compressor.
- Set the regulator at 80 psi and start the compressor.

**NOTE:** Pressure must never exceed 100 psi, since it can damage the stapler or cause harm to you or others.

- On a scrap piece of flooring, set stapler flush on the substrate and fully engage the stapler into the tongue-and-groove joint. Pull the trigger and examine staple placement
- When the top of the staple's crown is flush with the nail pocket, the tool is properly positioned. (See illustration b.)
- Should the staple penetrate too deeply or not deeply enough, reduce or increase the pressure until the staple is flush.

### JOB PREPARATION AND INSTALLATION

Before installation, do a calculation to determine the width of the last row of planks. If it is less than 1/2" wide, split the difference between the starter row and the last row. In any case, you will most likely be required to cut the last row of planks to width with a table saw equipped with a plywood cutting blade. For the staple-down and nail-down methods, cover the subfloor with red rosin paper or any other suitable lining material. This will help keep dust away from the wood floor, retard moisture from below, and may help prevent squeaks from occurring. There is no complete moisture barrier system, however, for nail-down and staple-down applications. Maximum wood or panel subfloor moisture should never exceed 14%.

Snap a chalk line from these points, parallel to that wall and perpendicular to the adjacent walls. Since most walls are not straight, the edge of some planks may have to be trimmed along the wall or cut to fit. Although engineered wood flooring is generally more dimensionally stable than solid wood flooring, the safe approach for a good commercial installation is to leave a 5/16" expansion space around the perimeter. Select a starter wall. An outside wall is best because it's most likely to be straight and square with the room. Measure out from this wall, at each end, the width of the plank plus 1/4".

#### "Racking" the Floor

This process is essential to achieve a random appearance. Start by either using random length planks found in the carton or by cutting four to five planks in random lengths, differing by at least 6". When starting these first few rows or courses, make certain to always measure from the tongue end of the plank for cutting. As you continue working across the floor be sure to maintain the 6" minimum between end joints on all adjacent rows. Randomly install different lengths to avoid a patterned appearance. Never waste materials; the ends cut from starter rows should be used at the opposite side of the room to complete rows or may also be used to start the next row.

**NOTE:** As stated earlier, it is extremely important to blend planks from several cartons to ensure a good balance of color and graining, and plank.

### INSTALLATION PROCEDURE

Install the first row of planks by laying the tongue edges on the chalk line. Proper alignment is critical. Misaligned starter rows can ruin the entire installation. Secure each plank to subfloor using a pneumatic brad tacker or with finishing nails (Drill pilot holes through the face of (in dark grain) if using finishing nails).

## STAPLE-DOWN INSTALLATION continued

**NOTE:** Proper alignment of planks is critical. Misaligned starter rows can ruin the entire installation.

After the first row is complete, adjacent rows should also be predrilled in the nail pocket and secured with finishing nails set at 45°. Rows of flooring will need to be installed in this manner until flooring planks are a sufficient distance away from the wall to accommodate the stapler. Stapling schedule is every 6" to 8" on center.

**NOTE:** Avoid clustering end joints and stagger random lengths so that the end joints are no closer than 6".

The precise engineering of our UltraFit™ tongue-and-groove system delivers a very stable floor. But you **MUST** make a good connection. Use a tapping block to tap the planks until the tongue-and-groove "snaps" into place.

**CAUTION:** Never use a rubber mallet to tap planks, since this can mar or damage the flooring.

Using the Mannington Spotnails Floor Monster stapler, with the proper adapter attached (see stapler instructions for proper setup), continue to staple new planks every 6" to 8" on center, fastening the ends of the planks approximately 2" from each end.

Using a pry bar, position the final filler planks. Face nail or tack each final plank into place with the pneumatic stapler. Install the molding and retain a few leftover planks in case a repair is ever required.

**Do not use manual nailers on any Mannington Hardwood Floors maple flooring or on any Tradewinds Collection. Bamboo flooring should not be stapled.**

Sweep floor to remove all dust and dirt. Take care not to scratch the finish.

### FINAL INSPECTION

After the floor is cleaned, inspect the floor for nicks, scratches, or any other imperfections that need attention. Touch up nicks and scratches with Mannington Hardwood Floors touch-up products. The newly installed floor can accept foot traffic immediately.

### FLOOR PROTECTION DURING CONSTRUCTION

Always protect the surface of installed flooring during construction by laying a quality felt paper over the floor and taping it to the baseboards. Never use plastic or polyethylene sheeting to cover the floor since they will trap moisture. The covering material must allow the floor to breathe.

## GLUE-DOWN INSTALLATION

### Glue-Down Installation Requirements & Procedures

The Mannington glue-down system makes installation smooth and easy. Wood planks are glued to the subfloor using Mannington UltraSpread Mastic™ adhesive and a minimum 3/16" x 5/32" V-Notched trowel. This moisture-cured polyurethane adhesive forms a tenacious bond. The adhesive is VOC compliant, nonflammable, contains 0% water, and has a very mild odor. You may install Mannington engineered hardwood floors over concrete subfloors when you are using Mannington UltraSpread Mastic if the subfloor is visually dry and has no history of moisture problems.

**NOTE:** Do not install Mannington Hardwood Floors over perimeter-installed resilient flooring.

**GLUE-DOWN  
INSTALLATION  
continued****SPECIAL TOOLS**

- Mannington UltraSpread Mastic
- Mannington PROTVNX Trowel 3/16" x 5/32" V-Notched (minimum)
- Non-marring blue painters tape
- Tapping Block SKU# TPBK009X
- 100-lb Roller

**JOB PREPARATION AND INSTALLATION**

Before installation, do a calculation to determine the width of the last row of planks. If it is less than 1-1/2" wide, split the difference between the starter row and the last row. In any case, you will most likely be required to cut the last row of planks to width with a table saw equipped with a plywood cutting blade.

**"Racking" the Floor**

This process is essential to achieve a random appearance. Start by either using random length planks found in the carton or by cutting four to five planks in random lengths, differing by at least 6". When starting these first few rows or courses, make certain to always measure from the tongue end of the plank when cutting. As you continue working across the floor be sure to maintain the 6" minimum between end joints on all adjacent rows. Randomly install different lengths to avoid a patterned appearance. Never waste materials; the ends cut from starter rows should be used at the opposite side of the room to complete rows or used to start the next row.

**NOTE: As stated earlier, it is extremely important to blend planks from several cartons to ensure a good balance of color, graining, and plank length.**

**INSTALLATION PROCEDURE**

Select a starter wall. An outside wall is best because it's more likely to be straight and square with the room. Measure out from this wall, at each end, the width of two planks.

Snap a chalk line from these points, parallel to that wall and perpendicular to the adjacent walls. Since most walls are not straight, the edge of some planks may have to be trimmed along the wall or cut to fit. Although engineered wood flooring is generally more dimensionally stable than solid wood flooring, the safe approach for a good commercial installation is to leave a 5/16" expansion space around perimeter.

Install the first row of starter planks and secure into position with the tongue facing the starter wall. Proper alignment is critical, misaligned starter rows can ruin the entire installation. It may be helpful to firmly secure a straight edge along the chalk line as a guide; this also helps to prevent planks from shifting in the wet adhesive. Or else, top nail the first row with finishing nails (wood subfloor) or sprig/pin nails (concrete subfloor).

Spread Mannington UltraSpread Mastic from the chalk line out to the width of two planks with a minimum 3/16" x 5/32" V-Notched trowel. You may start laying planks immediately into wet adhesive; however, for optimum performance Mannington recommends allowing the adhesive to set for 30 minutes.

The precise engineering of our UltraFit™ tongue-and-groove system creates a very stable floor. But you **MUST** make a good connection. Use a tapping block to tap the planks together until the tongue-and-groove "snaps" into place.

When the first two starter rows are secure, spread 2 1/2 to 3' of adhesive across the length of the room. (Never spread more adhesive than can be covered in approximately 3 hours). If the adhesive has set and will not transfer to the back of the plank, scrape up the adhesive and apply fresh UltraSpread Mastic adhesive.

## GLUE-DOWN INSTALLATION continued

Place planks into position on top of adhesive and tap into place with a tapping block. Avoid clustering the end joints. Stagger random lengths so that end joints are no closer than 6". After several rows of planks are down, secure the rows using non-marring, releasable blue painters tape. Do not allow the tape to remain on the planks longer than required. Repeat this process as the installation progresses.

**Note: When using releasable blue painters tape it must never be left on the flooring planks for more than a few hours. Additionally, this type of tape is affected by heat and sunlight and will lose its "releasable" property. Always use "fresh" tape when securing wood planks.**

When you have finished installing planks across the work area, and if you used a starter straightedge, go back to the beginning of the installation and remove straightedges. Spread adhesive onto exposed subfloor and use a pry bar to position the final two rows into place. Be aware that you will have to remove the tongue from the last row to complete the installation.

Thoroughly roll the flooring in both directions using a clean, three-section 100-lb floor roller. Clean any residual adhesive off of the installed planks using a urethane adhesive cleaner such mineral spirits.

### FINAL INSPECTION

After the floor is rolled and cleaned, inspect the floor for nicks, scratches, and planks that may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with Mannington Hardwood Floors touch-up products. In typical climates, the new floor can accept foot traffic within 12 hours and heavier furniture or fixtures within 24 hours. Arid (dry) climates may require more curing time. Retain a few leftover planks in case a repair is ever required.

### FLOOR PROTECTION DURING CONSTRUCTION

Always protect the surface of installed flooring during construction by laying a quality felt paper over the floor and taping it to the baseboards. Never use plastic or polyethylene sheeting to cover the floor since they trap moisture. The covering material must allow the floor to breathe.

## FLOATING INSTALLATION

### FLOATING INSTALLATION REQUIREMENTS AND PROCEDURES

Mannington 9/16", 1/2", and 3/8" thick engineered wood plank flooring 3" and wider may be installed using the floating method over numerous subfloors, including concrete, gypsum subfloors, plywood, composition board, ceramic tile, vinyl tile, sheet vinyl, and radiant-heated floors. The floating method tends to be one of the easiest methods of install engineered wood floors and is the only technique that is appropriate for many substrates that are not suitable for other installation methods.

**NOTE: While the floating method offers some advantages, there are some things of which you should be aware:**

- (1) The floor may have a hollow sound when walking on it.
- (2) The wood rests on the subfloor with its own weight, which may cause the floor to have slight vertical movement.

### SPECIAL TOOLS

- Appropriate Mannington Underlayment (see below for details)
- Mannington MegaGlue™ Adhesive (SKU #600021)
- Glue Scraper
- Spacing Wedges
- Safety Glasses
- Tapping Block (SKU #TPBK009X)
- Pry Bar
- Non-marring blue painters tape

**FLOATING  
INSTALLATION  
continued**

**MANNINGTON UNDERLAYMENTS**

**AquaBarrier II™**

AquaBarrier II is an underlayment sheeting that combines a foam cushion layer and a moisture barrier film all in one sheet. The underlayment also has a built-in edge sealing system for attaching the sheets together. AquaBarrier II is to be used for below-grade or on-grade subfloors where moisture is a concern.

AquaBarrier II–Jumbo Roll (Item #600001)

1 roll of underlayment (300 sq ft)

**Mannington® Whisper Underlayment**

Mannington Whisper Underlayment stops footsteps in their tracks. When installed properly, this new underlayment system “deadens” the sounds made on a Mannington Hardwood Floor.

**INSTALLATION OF AQUABARRIER II UNDERLAYMENT**

AquaBarrier II Underlayment eliminates the need for a separate moisture barrier film and underlayment cushion. Install one sheet of AquaBarrier II Underlayment net along the starting wall. Unroll only one sheet at a time during plank installation to prevent damaging the underlayment. If any part of the AquaBarrier II Underlayment is punctured or damaged during installation, seal the area with duct tape.

You will need one (1) roll of AquaBarrier II for every four (4) cartons of wood flooring installed. The amount of MegaGlue Adhesive required depends on the plank width being installed. Please see MegaGlue Adhesive Requirements chart on page 16.3 for further details. Install AquaBarrier II by laying it out, poly side facing up. Seal all seams using the built-in edge sealing tape system. Tape any relief cuts or butt seams with duct tape.

**INSTALLATION OF MANNINGTON WHISPER UNDERLAYMENT**

If the installation area is above ground and protection against moisture is not a concern, you may install Whisper Underlayment. Please note, the directions outlined below explain the installation and use of AquaBarrier II Underlayment. Please follow these general guidelines. However, when the installation requires more than one sheet of Whisper, simply butt each end together and seal with duct tape.

**“Racking” the Floor**

This process is essential to achieve a random appearance. Start by either using random length planks found in the carton or by cutting four to five planks in random lengths, differing by at least 6". When starting these first few rows or courses, make certain to always measure from the tongue end of the plank when cutting. As you continue working across the floor be sure to maintain the 6" minimum between end joints on all adjacent rows. Randomly install different lengths to avoid a patterned appearance. Never waste materials; the ends cut from starter rows should be used at the opposite side of the room to complete rows or used to start the next row. NOTE: As stated earlier, it is extremely important to blend planks from several cartons to ensure a good balance of color, graining, and plank length.

**FLOATING INSTALLATION**

In a floating floor installation, the flooring is NOT nailed or glued to the underlayment, but is glued in the plank’s groove only. Apply Mannington MegaGlue adhesive to the bottom of groove along the entire length and on the end of each plank. Do not completely fill the groove with adhesive.

**JOB PREPARATION**

Undercut all doorcasings 1/16" higher than the thickness of the flooring and underlayment to be installed. Place a scrap piece of plank and a sheet of underlayment against the doorcasing act as a guide and cut the doorcasing with a hand saw or power jamb saw set to the correct height.



**FLOATING  
INSTALLATION  
continued**

After deciding the direction in which the planks will run, measure the width of the room (the dimension perpendicular to the direction of the flooring). The last row of flooring should be no less than 1-1/2" wide. If it is less, we recommend cutting the starter row narrower. This will require extra cutting but it will make the rest of the installation easier and faster.

**INSTALLATION METHOD**

Cut the Mannington MegaGlue adhesive applicator nozzle at a 45° angle with a utility knife. Do not cut off any part of the cap locking ring around the nozzle

The installation sequence is critical and provides stability to the first two rows. Proper alignment is critical. Misaligned starter rows can ruin the entire installation.

Before starting to glue planks, dry-lay the entire first two rows on top of the selected underlayment. Begin in the upper right corner of the work area with the groove side of the planks facing the wall. Place spacing wedges along the walls on both the ends and sides of all planks. Although engineered wood flooring is generally more dimensionally stable than solid wood flooring, the safe approach for a good commercial installation is to leave a 5/16" expansion space around perimeter. In addition, it is not recommended to anchor any fixtures or furniture directly to a floating wood floor. When anchoring any product directly the sub floor below, be sure to leave a 3/16" - 5/16" expansion space around the anchor.

The installation sequence is critical and provides stability to the first two rows. Closely follow the next several instructions to obtain the proper gluing sequence for the first few rows of planks. To start, glue the first plank in the second row to the first plank in the starter row, and so on. Use a tapping block and a hammer to push glued planks together until no gaps are seen. Immediately wipe away any excess adhesive with a glue scraper or a clean damp cloth.

**CAUTION: Never use a hammer or mallet directly on the flooring.**

Glue the next plank to the plank in the previous row. Apply adhesive only to the width end of the plank. Tap the planks together carefully with a tapping block and hammer. Remember to continually remove adhesive squeezed up between the joints with a glue scraper or a clean damp cloth.

Glue the next plank in the same row to the previously glued plank from the previous row. Apply adhesive to both the length and width edges of the plank.

At the end wall use a pry bar, if needed, to pull the ends of the planks tight. Continue laying the floor on top of the selected underlayment, working right to left, laying plank after plank, row after row, tapping the planks together as you go. Be sure to continue using 5/16" spacing wedges at all walls and obstructions throughout the installation.

Once the first sheet of underlayment is covered with wood flooring, install the second sheet. After several runs of planks are down, use strips of non-marring, releasable blue painters tape to hold the planks securely. Repeat this process as the installation progresses. Remove the tape as you go. Do not allow the tape to remain on flooring planks longer than 2 hours.

**Note: When using releasable blue painters tape it must never be left on the flooring planks for more than a few hours. Additionally, this type of tape is affected by heat and sunlight and will lose its "releasable" property. Always use "fresh" tape when securing wood planks.** The last row will most likely require cutting to width but it should be no less than 1-1/2" wide. To do this, lay the plank on top of, and edge-to-edge with, the plank in the next-to-the-last row. Trace the wall contour on the last plank using a scrap piece of plank and cut as required. Install cut planks and pull into place with a pry bar. Install spacing wedges between planks and wall. Allow floor to dry for a minimum of 12 hours before removing all spacing wedges and allowing foot traffic. Sweep the floor to remove all dust and dirt, taking care not to scratch the finish.

**FLOATING  
INSTALLATION  
continued****FINAL INSPECTION**

After the floor is cleaned, inspect the floor for nicks, scratches, and planks that may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with Mannington Hardwood Floors touch-up products. In most climates, the floor can accept foot traffic within 12 hours and heavier furniture or fixtures within 24 hours.

**Floor Protection During Construction**

Always protect the surface of installed flooring during construction by laying a quality felt paper over the floor and taping it to the baseboards. Never use plastic or polyethylene sheeting to cover the floor since they trap moisture. The covering material must allow the floor to breathe.

Although Mannington Commercial engineered wood flooring is inherently tough, it can be accidentally chipped by something falling on top of it. Always inspect each plank closely before installation. If damage occurs after installation, however, the following repair procedure may be used.

**NOTE: Warranty does not cover labor for repair and replacement when a floor with visual defects has been permanently installed.**

**REPAIRS**

To replace an entire damaged plank, begin by drilling four 1/2" holes in the damaged plank approximately 1/4" away from all four plank corners. Use extreme caution when drilling to prevent damage to adjoining planks. Plank Replacement It's a good idea to mark your cutting path before drilling/sawing into the damaged plank.

To remove the plank you must cut it with a circular saw. Set saw to precise depth of plank. Cut diagonally from one corner hole to the opposite corner hole to create an "X" in the damaged plank. Follow directions below to remove cut planks.

To remove cut planks, loosen by prying up at saw cut with a chisel or small pry bar. Position weights on an existing plank along the seam edge of the damaged plank. This will weight the existing floor as you break the glue bond. With your hands, pry and lift the piece out of place. Wear gloves as an extra precaution to avoid injury. Use extreme caution when removing the damaged plank pieces to also prevent harm to adjoining planks.

Use a chisel and a hammer to remove any remaining damaged plank pieces.

Once the plank is thoroughly removed, clean the tongue-and-groove joints of the surrounding planks with a sharp chisel.

Vacuum all sawdust and debris away from repair area before proceeding.

Prepare the replacement plank by cutting off the plank's bottom groove along both the length and width using a power saw. Cutting this bottom flange away will help ease placement of the repair plank into the repair area. Also cut off 3" of the tongue from the repair plank. Check planks for fit.

Always use Mannington adhesive and sundry products. When employing the floating method, apply adhesive to the bottom of the groove on the repair plank. For the glue-down method, spread the appropriate amount of UltraSpread Mastic™ with the correct V-Notched trowel.

**REPAIRS  
continued**

Slide the repair plank into place using a tapping block, first inserting the side with 3" cut off the tongue. Wipe away any excess glue with a clean dampened cloth or with a Mannington glue scraper. Weight the repair plank and avoid active foot traffic for approximately 12 hours after the repair has been completed.

**MOLDINGS  
AND TRIM**

Finish your installation with Mannington Wood Floors' matching moldings and trim. Our prefinished moldings and trim are manufactured to match our line of finishes to enhance the final appearance of your wood floor installation.

**REDUCER STRIP**

This molding creates a perfect transition between floors of different heights; for example, engineered wood to resilient flooring.

**STEP NOSING**

Stairs often take a lot of traffic and they also serve as a decorative focal point. This protective strip along the edges will catch the brunt of foot traffic, while enhancing the overall beauty of the staircase.

**BABY THRESHOLD**

Baby Thresholds are used in the doorways of adjoining rooms with floors of two different heights.

**T-MOLDING**

T-Molding should be used to join two different floor surfaces that are approximately the same height; for example, engineered wood to ceramic tile.

**WALL BASE**

This molding accents the wood floor at the base of the walls. It gives any room a formal finished look, while maintaining a crisp, sharp juncture between the floor and wall. This molding can be used with or without Quarter Round.

**QUARTER ROUND**

The rounded profile of this molding creates a subtle blend between the floor and the wall. It can be used with or without Wall Base molding.

**MOLDING  
INSTALLATION**

Install Mannington Commercial wood moldings using traditional methods. Simply nail moldings into place with clean finishing nails. Follow the instructions below for specific installation techniques on each molding.

**QUARTER ROUND & WALL BASE**

Nail Quarter Round and Wall Base molding into the wall with finishing nails. Wall Base and Quarter Round can either be used separately or together, each achieving a different look and style. Do not fasten these moldings directly into the flooring. They should be kept slightly off the floor so as not to bind or jam the flooring.

Step Nosing requires a unique installation method. Glue the wood flooring and Step Nosing directly to the stair tread using Mannington UltraSpread Mastic™.

When installing T-Molding, Baby Threshold, or Reducer Strip, first drill small holes in the molding to avoid wood splits. Using the drilled holes as your guide, hammer finishing nails directly into the subfloor every 18".

**MOLDING  
INSTALLATION  
continued**

**FINISH MOLDINGS**

Use appropriate finish moldings or terminating profiles as transitions to door thresholds, steps, or other floor coverings. T-Molding, Baby Threshold, and Reducer Strip moldings can be glued or nailed to the subfloor using finishing nails. When installing Quarter Round and Wall Base it is important to miter all corners as well as junctures. Drill small holes for nailing in the molding to avoid wood splits and nail into the wall every 18".

<b>MEGAGLUE ADHESIVE REQUIREMENTS</b>	
Requirements per 100 sq ft	
Plank Width	Approximate Number of MegaGlue Bottles/100 sq ft
3"	2.5
5"	1.5