

# INSTALLATION INSTRUCTIONS

## Malaga



**Attention Installer!**  
**STOP and READ**  
→

**BEFORE INTALLING THIS PRODUCT**, it is imperative that you inspect the products size, profile, quantity, style, color and any other natural variation to ensure that the product is satisfactory and meets your specifications. Also be sure to check each board during installation for any visible defects such as mismilled planks and blotches.

Please **DO NOT INSTALL THE PRODUCT** if there is any concern about its quality or specifications. Requests for replacement, refund or compensation made **AFTER** installation will **NOT** be honored.

This product may have very high color / character variation. Work out of several cartons simultaneously during installation. When finished moldings are required for the project, pre-select the plank(s) that best coordinates with the color of the adjacent molding piece(s).

## INSTALLER/OWNER RESPONSIBILITIES

Hardwood flooring is a product of nature and its inherent beauty stems from the fact that each piece is unique with no two pieces the same. Due to the fact that this flooring is a product of nature, the installer and/or owner, have the following responsibilities:

- 1) Understanding how the floor will look once installed – the installer and consumer must meet prior to installation to review expectations:
  - a. How was the floor chosen? Review the control samples, (the samples from which the floor was chosen), and compare to the actual flooring batch (if there are multiple batches open a carton for each unique batch number and compare and blend during installation) onsite prior to installation making sure it meets the owner’s expectations as to:
    - i. Grade – Is it the correct grade? Also grade from batch to batch may vary slightly so make sure the owner is happy with this batch of flooring you are about to install.
    - ii. Color/Graining – Do certain dark/light pieces or wild grained need to be graded out to meet the owners expectations?
    - iii. Color Variation, Batch to Batch – Inspect the production run of flooring you received and make sure it meets your expectations. Wood from different locales can have varying colors and grains and differ from the samples from which the floor was chosen. Tint colors may also vary slightly batch to batch. Make sure the owner will be happy with the batch they received.
    - iv. Color Change – Do they understand how the wood will change color over time? The owner may have chosen their floor from samples that have aged so they need to understand in advance of installation the color change to be expected in this wood.
    - v. Finish Issues:
      1. Is the gloss correct?
      2. Does the look of the finish meet the owners expectations?
      3. Does the owner understand that the finish will scratch and wear and that care must be taken during installation, move-in and in-use?

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**Congratulations!** You have now made sure that the owner will not be disappointed once the flooring is installed and they see it for the first time!! **The manufacturer cannot be responsible for visual issues once the flooring is installed including wood character, finish style and gloss.**

- 2) Installer responsibilities during installation:
  - a. Receive the floor & make sure it is as ordered and meets the owner's expectations.
  - b. Test the subfloor and relative humidity on site to make sure the flooring will perform satisfactorily on this installation.
  - c. Follow these Installation Instructions.
  - d. Grade out any pieces with visible defects and stop the installation should a reoccurring problem be found, (over the 5% allowed by industry practices). **DO NOT INSTALL pieces with visible defects or questionable wood character.**
- 3) Keep a Permanent Job Record – site relative humidity, temperature, and flooring and subfloor moisture content must be recorded.
- 4) Make sure the owner understands that wood and water, (as well as wood and overly dry conditions), do not mix as wood flooring is a natural material and will shrink/cup/move when over-dried and will expand, delaminate, warp and buckle/cup when over-wetted.
- 5) Make sure the owner understands how to maintain the floor. Please refer to the Malaga Maintenance Instructions & Warranty for further specifics. **Never wet mop the floor!**

**WARNING:** Our flooring is well manufactured and is designed to perform within the typical residential environment. We are not responsible for site conditions, as we do not control them. Only you, the installer can test and correct for too dry or too wet site conditions prior to installation. **Note:** Wood flooring installed in areas where the relative humidity is below 35% may cup, shrink in width/length, or crack and in these dry conditions a humidifier is necessary to bring relative humidity above 35%. Flooring installed on top of wet sub floors may crown, (and then cup), swell, (and then shrink), buckle, telegraph, or edge/tip raise. Flooring that is soaked from above will do the same. **DO NOT INSTALL THIS FLOORING ON WET SUBFLOORS OR IN OVERLY DRY CONDITIONS** without first correcting any deficient conditions.

## PRE-INSTALLATION JOBSITE REQUIREMENTS

Carefully examine the flooring prior to installation for grade, color, finish and quality. Ensure adequate lighting for proper inspection. If flooring is not acceptable, contact your distributor immediately and arrange for replacement. The manufacturer cannot accept responsibility for flooring installed with visible defects. Prior to installation of any flooring, the installer must ensure that the jobsite and subfloor meet the requirements of these instructions. The manufacturer is not responsible for flooring failure resulting from unsatisfactory jobsite and/or subfloor conditions.

Hardwood flooring should be one of the last items installed for any new construction or remodel project. All work involving water or moisture should be completed before flooring installation. **Warning** – Water and wood do not mix. Installing flooring onto a wet subfloor will likely cause cupping, tip & edge raising, telegraphing of core and subsequent gapping.

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Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least a week before installation of wood flooring. Room temperature of 65 – 75°F and a humidity range of 35 – 65% is recommended. **Warning** – Humidity levels below 35% will likely cause movement in the flooring, including gapping between pieces and possible cupping and checking in the face.

The manufacturer cannot be held responsible for site conditions. Flooring formats, such as plywood based engineered wood flooring, are particularly susceptible to showing movement such as edge/end shrinking and face checking from low relative humidity below 35% on site and/or tip raising and subsequent end shrinking if installed over a wet subfloor.

Store the wood flooring, in the UNOPENED boxes, at installation area for 24 – 72 hours before installation to allow flooring to adjust to room temperature. Do not store the boxes of flooring directly on concrete. **DO NOT OPEN THE BOXES PRIOR TO INSTALLATION!**

Engineered wood floors DO NOT need any moisture equalization prior to installation and should be installed from just opened boxes. DO NOT OPEN more than a few boxes in advance of installation and only the number of boxes which will be installed within the next few hours.

## PRE-INSTALLATION SUBFLOOR REQUIREMENTS

### All Subfloor must be:

- Structurally sound
- Clean: Thoroughly swept and free of all debris (If being glued down, subfloor must be free from wax, grease, paint, sealers, & old adhesives etc., which can be removed by sanding)
- Level: Flat to  $\frac{3}{16}$ " per 10-foot radius
- Dry and will remain dry: Subfloor must remain dry year-round. Moisture content of wood sub floors must not exceed 11%, concrete must not exceed 3.5 as measured with a Tramex Commercial Concrete Moisture Meter.

**Wood Sub Floors** must be dry and well secured. Nail or screw every 6" along joists to avoid squeaking. If not level, sand down high spots and fill low spots with an underlayment patch. Must accept and hold both cleats or staples using a nail-down installation method.

**Please Note\*** - OSB with excessive moisture can compromise nail holding power.

**Concrete Sub Floors** must be fully cured, at least 60 days old, and should have minimum 6-mil. polyfilm between concrete and ground. Subfloor should be flat and level within  $\frac{3}{16}$ " on 10'. If necessary grind high spots down and level low spots with and appropriate Leveling Compound.

Do not install on concrete unless YOU ARE SURE it stays dry year-round. All concrete should be tested for moisture and be below 3.5 moisture content as measured by a Tramex Commercial Concrete Moisture Meter. Other concrete testing methods may be used, see Other Concrete Testing Methods.

It is highly recommended, that if gluing down on concrete, (even if you believe it is dry), which is on or below grade, to install Sheet Vinyl first and then glue the wood flooring on top of the vinyl, as this provides an effective permanent moisture barrier. Another alternative to sheet vinyl is to use the Bostik or Mapei Moisture Barrier Systems and they provide warranties to you.

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Remember, a concrete slab on /below grade that measures dry today may become moist in the future due to rising groundwater. Installing a moisture barrier now may be viewed as an insurance policy against concrete becoming wet in the future. This will lead to subsequent floor failure. The manufacturer is not responsible for site related moisture issues.

**Ceramic tile, resilient tile and sheet vinyl covered Subfloors** must be well-bonded to subfloor, in good condition, clean and level. *Do not sand existing vinyl floors, as they may contain asbestos.*

**Radiant heat:** Use only floating installation over radiant heat. Subfloor should never exceed 80°F. Check with radiant heat manufacturer's suggested guidelines to limit the maximum water temperature inside heating pipes. Switch off heating unit one or two days before flooring installation and bring heat up slowly after installation.

Radiant heat systems should be used according to the manufacturer's instructions and must not exceed a temperature of 80° Fahrenheit (27° Celcius) in any location. Excessive heat, rapid heating, and/or failure to maintain humidity levels between 35% and 65% are likely to cause cracking, cupping and other forms of floor stress. Slight end gapping and surface checking (cracking), particularly at the ends of the planks, should be expected in installations over radiant heat and does not constitute a product failure. Every floor board should be inspected and approved prior to being installed with special attention to wood character which has become loose. These boards should be culled out and not installed. The floating installation method is the best application for wood floors over radiant heat. Other forms of installation should be tested prior to beginning the installation.

For installations greater than 1,000 sqft, a long term data logger for wood flooring is required and will help the consumer better manage the home's environment year long.

## INSTALLATION TOOLS

### For all installation methods:

- Tape measure
- Tapping block (or trimmed piece of flooring)
- Pencil
- Pry bar
- Chalk line
- Wood or plastic spacers ( $\frac{3}{8}$ " )
- Crosscut power saw
- Hammer

### For the recommended glue-down installation method, you'll also need:

- Flooring adhesive - following the manufacturer requirements for flash times.  
**DO NOT USE** water based mastics as they will cause this floor to fail). **DO NOT** lay flooring in wet adhesive if they require flash times
- On concrete slabs, which are on/below grade, we strongly recommend installing Sheet Vinyl first and then installing the wood floor on the vinyl or using the Bostik or Mapei Moisture Barrier Systems.
- Trowel per flooring adhesive manufacturer's recommendations.

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### For nail-down installation, you will also need:

- Industrial Flooring Stapler or Nailer with appropriate adapter shoe to assure the proper position for the nail/staple
  - 1 ½” staples for the floor runner stapler (18 gauge)
  - 1 ½” L-shaped cleats (18 gauge)
- Air compressor

### For floating installation, you’ll also need:

- 6-mil. polyfilm
- Foam Underlayment
- WF Taylor 2049 Floating Tongue & Groove Adhesive

### Acceptable Subfloor types:

- Plywood (at least ¾” thick)
- Underlayment grade particleboard -floating/glue-down only)
- OSB PS2 rated (at least ¾” thick) – **Note:** some OSB type products will not hold the nail in place which can result in squeaky floors. This is a subfloor issue.
- Concrete slab (floating/glue-down only)
- Existing wood floor
- Ceramic tile (floating/glue-down only)
- Resilient tile & sheet vinyl (floating/glue-down only)

## STARTING YOUR INSTALLATION

Make sure subfloor is tested for moisture first and is properly prepared.

Since wood expands with any increase in moisture content, always leave at least a ⅜” expansion space between flooring and all walls and any other permanent vertical objects, (such as pipes and cabinets). This space will be covered up once you reapply base moldings around the room. Use wood or plastic spacers during installation to maintain this ⅜” expansion space.

When laying flooring, stagger end joints from row to row by at least 8”. When cutting the last plank in a row to fit, you can use the cut-off end to begin the next row. If cut-off end is 8” in length or less, discard it and instead cut a new plank at a random length and use it to start the next row. Always begin each row from the same side of the room.

Work from several open boxes of flooring and “dry lay” the floor before permanently laying the floor, but never open more than a few boxes in advance. This will allow you to select the varying grains & colors and to arrange them in a harmonious pattern. It also allows you the opportunity to select out very dark/light pieces for use in hidden areas in order to create a more uniform floor. Remember, it is the installers’ responsibility to set the expectations of what the finished floor will look like with the end user first and then to cull out pieces that do not meet those expectations.

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To draw planks together, always use a tapping block, (a short piece of flooring), and hammer, as tapping the flooring itself will result in edge damage. When near a wall, you can use a pry bar to pry close the side and end joints. Take care not to damage edge of flooring.

Begin installation next to an outside wall. This is usually the straightest and best reference for establishing a straight working line. Establish this line by measuring an equal distance from the wall at both ends and snapping a chalk line. The distance you measure from the wall should be the width of a plank plus about 3/8" for expansion space. You may need to scribe cut the first row of planks to match the wall in order to make a straight working line if the wall is out of straight.

You may want to dry lay a few rows, (no glue or nails), before starting installation to confirm your layout decision and working line.

### RECOMMENDED - GLUE DOWN INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared.

On concrete subfloors, which are on or below grade (ground level), always assume the worst and even if they measure dry, we now recommend taking the following installation steps to ensure a trouble-free installation. The cost of the precaution is little when compared to costs to rip out and replace a floor which has failed due to high moisture from the subfloor.

**Method #1:** We recommend installing a sheet vinyl floor first and then gluing down our wood floor over the sheet vinyl. Follow the vinyl manufacturers' recommendations.

**Method #2:** Both Mapei and Bostik now offer Moisture Barrier Systems on which they provide a warranty that moisture will not pass through and damage your wood flooring. For Information search:

Bostik Moisture Barrier System  
Mapei Moisture Barrier System

Flooring adhesive manufacturers: Bostik, Mapei, Sikabond  
(Note: **DO NOT USE** water based mastics)

**DO NOT** lay flooring in wet adhesive unless advised. **DO NOT** use water based adhesives! Follow adhesive instructions for proper trowel size and adhesive set time before beginning installation of flooring.

Once the spread adhesive has setup sufficiently per adhesive manufacturer's instructions, lay the first row of flooring with groove facing the wall, and continue laying flooring. Always check your working lines to be sure the floor is still aligned. Use tapping block to fit planks together, but be careful not to let installed floor move on the wet adhesive while you are working.

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When first section is finished, continue to spread adhesive and lay flooring section by section until installation is complete. Use a damp cloth to immediately remove any adhesive that gets on flooring surface. **Warning – DO NOT** allow adhesives to dry on the finished flooring as it is very difficult to remove it once dried without damaging the flooring. For info on an adhesive remover: Bostik's Ultimate Urethane Adhesive Remover. Remember to stagger end joints from row to row.

Always leave at least a  $\frac{3}{8}$ " expansion space between flooring and all walls and vertical objects (such as pipes and cabinets). Use wood or plastic spacers during installation to maintain this expansion space.

Walk each section of flooring in order to make sure it is well bonded to the subfloor within the adhesive working time. Flooring planks on the perimeter of the room may require weight on them until adhesive cures enough to hold them down. Make sure the floor is clean from debris to avoid unwanted denting.

### STAPLE/ NAIL DOWN INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared. Use Industrial Flooring Stapler from Bostich or Powernailer – air stapler/nailer with  $\frac{1}{2}$ " Naildown adapter or a stapler/nailer of your choice after testing to make sure that stapling/nailing will not cause dimpling in the finished floor.

For the first and second starting rows: Lay first plank inside chalk line with grooved edge toward wall. Install entire first row in the same manner. Always leave at least a  $\frac{3}{8}$ " expansion space between flooring and all walls and vertical objects (such as pipes and cabinets). Use wood or plastic spacers during installation to maintain this expansion space. In order to affix these first rows, use screws to set a strong and straight starting row rather than face nailing. Begin the subsequent rows, and once you have installed enough flooring whereby the nailer will not move the starter row off alignment, unscrew the starter row, throw away the damaged pieces and glue down replacement boards with a urethane adhesive. Set weight on top of these rows and allow them to set.

Subsequent rows: Lay by using floor nailer/stapler to blind-nail top inside edge of tongue at a 45 degree angle. Nail each board every 4 – 6" and within 2" of each end. Remember to stagger end joints from row to row and use a tapping block to fit boards together. It may be necessary to face-nail in doorways or tight areas where the nailer/stapler can't fit, (or glue down in these areas and weight them while the mastic sets). The last two rows will need to be face-nailed, (or glued down), in the same manner as the first two rows.

**WARNING:** Stapling/nailing can cause dimpling on the face if stapled incorrectly. Always make sure to visually check the installed floor as you go to ensure that the stapling/nailing is not causing dimpling on the face. (Note: be sure to look at the face of the installed flooring at a low angle from a distance to see if dimpling is occurring as it is hard to see when directly above the floor.) If dimpling does occur, **STOP** and adjust the stapler/nailer shoe and angle/place of staple entry in order to avoid it. The manufacturer is not responsible for dimpling.



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### FLOATING INSTALLATION

Make sure subfloor is tested for moisture content first and is properly prepared.

Laying an underlayment of polyfilm: If below or on grade, first lay a 6-mil. polyfilm with seams overlapped 8". Fasten seams every 18 – 24" with duct tape. Run the outside edges of film up perimeter of each wall 4" (trim after flooring installation is complete).

Laying foam: Lay Foam Underlayment by butting edges, not overlapping. Tape full length of the seam.

Installing the floor: Start first row with groove toward wall. Glue end joints of first row by applying a small but continuous bead of WF Taylor 2049 Floating Tongue & Groove Adhesive to bottom side of the side groove. Always leave at least a 3/8" expansion space between flooring and all walls and vertical objects (such as pipes and cabinets).

Use wood or plastic spacers during installation to maintain this expansion space. Lay subsequent rows of flooring by applying glue to side and end joints and fitting planks together with a tapping block. Remember to stagger end joints from row to row at least 8" apart.

Clean up any adhesive that is on the face of the floor by using a damp rag – **DO NOT** allow adhesive to dry on the flooring face as it is difficult to then remove without damaging the flooring face.

### AFTER INSTALLATION

- If you decide to cover the floor, (to allow the other construction trades to continue working), in order to protect the floors prior to final cleanup and turnover to the owner, use rosin paper to cover the floors and only use Scotch Blue 3M Medium Adhesion Tape to hold the rosin paper to the floor. **DO NOT USE** plastic film or other non breathing type coverings as this can cause the floor to become damaged from humidity buildups.
- Remove expansion spacers and reinstall base and/or quarter round moldings to cover the expansion space.
- It is suggested that you buff the floor with lambs wool pads in order to "pull any splinters", remove any residues and handprints/foot prints, etc.
- Install any transition pieces that may be needed (reducer, T-moldings, nosing, etc.).
- Do not allow foot traffic or heavy furniture on floor for 24 hours (if glue-down or floating).
- Dust mop or vacuum your floor to remove any dirt or debris.

### CARE & MAINTENANCE

Please visit [www.themissioncollection.com](http://www.themissioncollection.com) for cleaning, care and maintenance instructions.