

COLORADO MOUNTAIN

COLLECTION

3-Layer Engineered Tongue & Groove Flooring

COLORADO MOUNTAIN COLLECTION - INSTALLATION GUIDELINES GLUE DOWN / NAIL OR STAPLE

PLEASE READ ALL INSTALLATION GUIDELINES BEFORE PROCEEDING WITH INSTALLATION

A. INSTALLER / OWNER RESPONSIBILITY - IMPORTANT

PRIOR to installation, inspect all materials to ensure correct product and to verify there are no visible defects. Once the materials are installed, defects are **not** covered by warranty. (Please note- industry standards allow up to 5% defect/irregularity tolerance.)

Refer to the "sample board" that was used while selecting flooring to be sure that it meets expectations of the buyer prior to installing materials. If they are not up to par, **do not install the materials**. Contact your distributor in order to receive replacement materials.

The buyer and installer are responsible for verifying that all subfloor and jobsite conditions are acceptable for wood floor installations. Our warranty **does not** cover problems related to subfloor or damages caused after installation.

In review, in order to ensure the best results, please:

1. Review materials to make sure wood flooring is acceptable to buyer.
2. Remove any materials with defects or irregularities.
3. Ensure subfloor and jobsite conditions are suitable for wood floor installation, including ambient temperature, humidity, and any other variables that could have a detrimental impact.
4. Take note of flooring moisture content once its delivered and when it is being installed- maintain these records.
5. Using NWFA Installation Guidelines for Acclimation on Jobsite, make sure that flooring is acclimated to the site conditions.
6. Take and maintain records of all aspects of the job.

When delivering wood flooring to a jobsite, ensure that the building is entirely closed and optimal temperature and humidity conditions have been reached. These conditions are what will be experienced in the building after occupancy.

IMPORTANT: Colorado Mountain Collection (also referred to as CMC) is designed to perform within a typical residential environment. Wood installed in areas where relative humidity is below 30% may cup and shrink. (A whole house humidifier may be necessary to keep the relative humidity within recommended levels of 30% to 50% year-round.) Flooring installed on wet subfloors may crown and buckle.

BE SURE TO CORRECT ANY OVERLY DRY OR WET CONDITIONS PRIOR TO INSTALLATION.

We recommend, if possible the use of a NWFA (National Wood Flooring Association) certified professional when installing our products.

B. PRE-INSTALLATION / JOBSITE REQUIREMENTS

It is imperative to allow acclimation. Store unopened cartons in a cool, shaded and dry place with a recommended ambient temperature of 60-80°F. If possible, store unopened cartons in the room or area that the flooring will be installed in with the recommended environmental conditions in effect.

In order to avoid moisture pick up or drops in the planks, **NEVER OPEN CARTONS** until the day of and just prior to installation. Particularly during the winter time, cartons in their original UNOPENED packaging should be acclimatized to the room temperatures and site conditions for at least three (3) to seven (7) days. **This is especially important in extremely dry climates (e.g. Utah, Arizona, Nevada, Idaho, Colorado, etc.)** See *NWFA Installation Guidelines, Section I, Chapter 2* for more acclimation details.

HANDLING AND STORAGE

For any new construction or remodel projects, hardwood flooring should be one of the last things installed. Any work that involves moisture should be done well before installing hardwood flooring.

KEEP FLOORING DRY: Flooring needs to be protected from moisture during storage and transportation. It should be kept flat in a dry area. Record and

maintain the flooring moisture content along with the subfloor temperature at the time of installation.

The moisture content (MC) of hardwood should generally be between 6% to 9%. For wide width flooring, there should be no more than 2% difference in MC between properly acclimated wood flooring and the subfloor.

HVAC should be in operation before and during installation (refer to *NWFA Installation Guidelines Section I, Chapter 1, Part 1* for further information).

Room temperature and humidity of installation areas should be consistent with 'NORMAL, YEAR-ROUND Living Conditions' for at least **one week** before installation of wood flooring. Room temperatures of 60° to 80°F and relative humidity levels are considered 'Normal Living Conditions' and should be maintained year-round for best results.

C. SUBFLOOR TYPES AND CONDITIONS

Types: (Refer to *NWFA Installation Guidelines, Section II for Subfloor Information*)

1. CD: Exposure 1 plywood, minimum 3/4" thick
2. Solid board: 1" x 6" wide, square edge, kiln dried
3. OSB: Exposure 1 (minimum 3/4" thick)
4. Concrete (refer to *NWFA Installation Guidelines, Section II, Chapter 5 & 6*)
5. Particle board is NOT an approved subfloor for nail down or glue down applications

Minimum Plywood Sub Flooring Requirements: 4' x 8' sheets of 3/4" CDX grade underlayment with a maximum 16" on center joist construction. If joist system is spaced over 16" on center an additional layer of 1/2" CDX Plywood underlayment, laid diagonal or perpendicular, will be required.

*Minimum specified materials at maximum span and spacing may result in movement, gaps, and noises.

The subfloor must be clean, dry, and flat to within 3/16" per 10' radius. If necessary, sand or plane high spots, and fill low areas using a cement-based patching/leveling compound. To prevent squeaking, secure any loose boards or panels. The surface temperature of the subfloor at time of installation should be at least 59°F but never exceed 80°F.

Our warranty **does not** cover damages due to moisture issue as it is not a product failure.

Asbestos Warning: Do not sand existing resilient tile, sheet flooring, backing, or felt linings as these products may contain asbestos fibers that are not easily identified. The inhalation of asbestos dust can cause asbestosis or other serious bodily harm. Check with local, state, and federal laws for handling hazardous material prior to attempting the removal of these floors.

BASEMENT AND CRAWL SPACES: Keep dry and ventilated. Crawl spaces must be a minimum of 18" from ground to underside of joists. Exposed earth should be fully covered by a minimum 6 mil black polyethylene vapor barrier with joints overlapped and sealed with a moisture resistant tape.

CONCRETE SUBFLOOR: New concrete should be completely cured for at least 50-60 days then tested for excessive moisture. A reading of over 3 lbs. / 1000 sq. ft. per 24 hours, by Calcium Chloride test requires the application of a vapor retarder.

In situ Test: Relative Humidity Probes should read 75% relative humidity or less in all areas. Ensure concrete has a minimum of 3000 PSI Compression.

WOOD SUBFLOOR:

It is very important to nail or screw any areas of loose or moving sub floor that will cause squeaks. Manufacturer recommends the use of nails or screws, with panels fastened every 8" along the joists or intermediate supports to ensure soundness of floor when complete.

The moisture content (MC) of a wood subfloor should not exceed 12%. In general, the moisture content of hardwood flooring is between 6% and 9% and the MC difference between the subfloor and flooring should not exceed 2% on a 3 1/4" or wider flooring.

OVER RADIANT HEATED FLOOR: Prior to installation over radiant heat systems it is important to refer to the *NWFA Installation Guidelines Section IV, Appendix H*. Failure to follow these guidelines can void your warranty and may produce unsatisfactory results. Use only over water-heated systems, **not recommended over electrically heated systems**.

NWFA - National Wood Flooring Association: 800-422-4556 (USA) / 800-848-8824 (Canada)

Radiant Heat Subfloors can be concrete, wood or a combination of both. Preparation for subfloors is determined by the type of subfloor. If the Radiant Heat subfloor is concrete the system should be fully operating at a normal temperature for a minimum of 21 days prior to floor installation to dry out residual moisture.

In order to avoid adhesives curing excessively fast, the system must then be turned off 24 hours prior to installation and must remain off for another 24 hours after installation. After the 24 hours, the system temperature can be gradually raised again over a one-week period up to the desired level.

The maximum allowable subfloor surface temperature over radiant heat is 81°F.

Radiant heat is a dry heat. A humidification system is recommended to maintain wood flooring in its comfort zone. Surface checking, excessive gapping, etc. can be expected if the proper humidity level is not maintained between 30-50% year-round, or the surface temperature exceeds 81°F.

An outside thermostat is recommended to minimize the effect that rapid changes in temperature will have on the moisture content of the wood floor.

INSTALLATION METHODS OVER RADIANT HEAT FLOORS:

The following installation methods can be used over radiant heated floors:

GLUE DOWN - See *Glue Down Method on page 3*

Use over an approved subfloor. Use only approved adhesives - CMC recommends Stauf or Wakol brand adhesives.

STAPLE/NAIL DOWN: See *Staple/Nail Down Method on page 5*

Install over approved subfloor. Be sure fasteners are not so long as to penetrate the heat source.

D. GENERAL INSTALLATION

REFER TO *NWFA INSTALLATION GUIDELINES, SECTION III, CHAPTER 9*

The product can be installed above, on-grade or below-grade. Installation methods can be either: Direct Glue, or Nail/Staple.

Plan the layout: Dry-lay the flooring before installing to avoid close end joints and to blend color and grain patterns. If you want greater visual differentiation, it is suggested to work from several cartons alternatively. Leave 1/2" expansion gap at all vertical objects, undercut all door jams.

GLUE DOWN METHOD

For boards with a width less than 8", CMC recommends using Wakol MS262 or Stauf PUM950 for the installation of our products. For boards with a width greater than 8", CMC recommends using Wakol MS290 or Stauf PUK455 for the installation of our products. Carefully read and follow the instructions provided by the adhesive manufacturers for the use and application of their product. Check with your flooring retailer for other adhesives and sealers that are compatible with engineered floors.

CAUTION: Adhesive that is allowed to dry on the plank surface can be difficult to remove and may leave a haze. Be sure to clean excess adhesive off surface of plank as you go. Use a Urethane Adhesive remover for this purpose.

1. Determine starting wall and direction to lay boards (an outside wall is recommended as it is likely square with the room). With a raised foundation wood should be installed perpendicular to the joists. In cases of existing wooden floor, boards should be laid crosswise or at a 45-degree angle.
2. Begin the installation by dry fitting the first row as follows. Begin installing the first row in the right corner of the base wall. Install the first board so the short-grooved side is against the expansion shims to your right and the long-grooved length of the board is against the expansion shims in front of you.
3. Use spacers regularly along the length of the wall to maintain expansion gap of 1/2" between first board and the wall. Determine straightness of wall by snapping a chalk line. If starting wall is not straight, make notation on first row and saw to shape.
4. Connect the end of the second board to the end of the first board, making sure the boards are tightly connected and firmly positioned against the shims. Use the rubber mallet and/or tapping block to tap the tongue end of the second board to ensure a tight fit. Never use the hammer or rubber mallet directly on the flooring as this will cause damage to the board.
5. Continue placing additional boards moving right to left using the same procedure until the first row is complete.
6. You will need to cut off the end of the final board. If it is at least 8" long, save the remaining piece for the next row. Use the last board Puller to ensure the last board is tight against the preceding board. Place shims between the end of the last board and the wall. Use the shims to wedge the row in tight rendering it immobile.
7. Once the first row has been cut and fit, remove the flooring and set it aside. Snap a chalk line the face width of the wood flooring plus 1/2" for expansion space out from the starting wall. Starting from the edge of the chalk line, apply an even layer of adhesive as instructed by the adhesive manufacturer. Only spread adhesive the width and length of the one row that was dry fit.

A NOTE ON ADHESIVE: Follow the instructions according to the adhesive manufacturer's instructions. Wear protective rubber gloves and proceed carefully during adhesive application. Cured mastic is very hard and sometimes impossible to remove from the flooring as well as the tools. **DO NOT** allow any spilled or excess adhesive to remain anywhere but between the boards and the subfloor at any time during the installation. Clean up spills immediately as recommended by the adhesive manufacturer. The flooring manufacturer will not be responsible in any way for adhesive that is not removed from the hardwood flooring immediately. Any damage to the flooring caused by the adhesive allowing to cure on the surface will be the sole responsibility of the installation mechanic.

Stay off glued floor for a minimum of 12 hours after installations.

8. To re-install the pre-cut boards from the dry, connect the end of the second board to the end of the first board, making sure the boards are tightly connected and firmly positioned. Use the hammer/rubber mallet and tapping block to tap the tongue end of the second board to ensure a tight fit. Again, never use the hammer or rubber mallet directly on the flooring as this will cause damage to the board. If necessary, use a low adhesive, *blue installers tape to maintain a tight joint (Remove tape within three (3) hours and remove any tape adhesive residue. * - use WALLS + WOOD FLOORS 3M 2080 EL Painters Tape)

9. Continue placing additional boards moving right to left using the same procedure until the first row is complete.

10. Place shims between the end of the last board and the wall. Use them to wedge the row in tight rendering it immobile. For best results, allow the adhesive

to dry before continuing with the rest of the installation.

11. Start each new row on the right side with remaining portion of the previous row as long as it is at least 8" long. If remaining portions are not at least 8" long, cut a new starter board. Stagger end joints (at least 18") and randomly install different lengths to ensure natural appearance. Do not create discernible patterns. Select boards to create a uniform appearance without clusters of short lengths or sections of light or dark planks. Do not install any objectionable boards that have visual defects or are not consistent with the grade being installed.

12. The end joint must be at least 18" from the end joint in the row before it. A minimum of one end joint is required in every row, regardless of width (e.g. hallways.)

13. Trowel adhesive onto the subfloor as recommended by the adhesive manufacturer. Place the next board in position, match the tongue and groove at the end only, then, beginning at the opposite end of the board, tap the board onto the previous row with the tapping block. Move the tapping block back toward the right side of the board until you get near the connections with the previous board. You must be sure the end joint is tight before you finish tapping the board onto the previous row. If the end joint is not completely tight you will not be able to do so once the long seam is tight.

14. Continue process across the room. The last board should be sawn to appropriate width allowing for 1/2" expansion space against walls and all vertical obstructions. The last board puller will be used to install the last row.

COMPLETING THE JOB: Roll every two (2) to three (3) hours and on completion with a 100lb to 150lb roller to ensure all planks are flat and in contact with the adhesive. Remove blue (3M Delicate Surface 2080 EL) installers tape within three (3) hours. Remove any spacer wedges. Cover all expansion spaces along walls with moldings.

Always fasten base moldings to the adjacent wall, not the flooring.

STAPLE/NAIL-DOWN INSTALLATION

IMPORTANT: THE FLOORING INSTALLER IS RESPONSIBLE FOR DETERMINING IF THE NAILER/STAPLER TO BE USED IS SPECIFIED FOR THE PARTICULAR PRODUCT BEING INSTALLED AND IS ADJUSTED PROPERLY TO AVOID DAMAGE TO THE FLOORING. CONTACT POWERNAIL (1-800-323-1653) OR WWW.POWERNAIL.COM FOR TECHNICAL QUESTIONS AND DEALER LOCATOR. CONTACT SPOTNAIL (1-800-973-2239) OR WWW.SPOTNAIL.COM FOR TECHNICAL QUESTIONS AND DEALER LOCATOR.

Due to extra-long lengths, add a tongue & groove glue into the groove of the short side of each plank. This can reduce excessive seasonal gapping use D3/Type II rated T&G glue.

Carefully remove any baseboard trim around the perimeter of room but keep for replacement after floor is installed. Cover wood subfloor wall to wall with the vapor retarder or 15 lb. asphalt saturated felt. Overlap 4" at seams. This will not only retard moisture but may help prevent squeaks. Snap a working line along the longest continuous wall allowing 1/2" expansion space. Direction of the planks should be at right angles to the joists for highest strength of flooring. Lay one row of planks along the entire length with groove facing the wall. If necessary, use spacing wedges to maintain expansion space. Top nail the first row, placing nails perpendicular to the surface as close as possible to the wall so that after completion the head of the nail will be hidden by the base molding. Apply T&G glue to all end joints. Remember to clean surplus adhesive as you work.

Blind nail the other side of the plank through the tongue (over a 3/4" subfloor use a 1 1/2", 18 gauge, 3/8" narrow crown, fastener) with the nail slightly inclined and the head driven flush. Staples should be placed 3" to 4" apart and cleats every 4" to 6" apart. All fasteners should be placed 1" to 2" of end joints. Hand nail the first row if necessary, then a nailing machine can be used. Start second row in the same manner. If necessary, cut the first board to stagger end joints of boards a minimum of 16" from row-to-row. From second row onward nailing is done on the tongue side only. Use a tapping block or soft-head mallet to engage tongue & groove. Never use a hammer or mallet directly on the surface or the flooring as this can cause damage to the board. The last row usually requires cutting the plank lengthwise to fit the space (remember to maintain the expansion gap). Nail the last row in the same manner as the first.

COMPLETING THE JOB: Once the nailing is complete, remove any spacing shims and install the base molding. Always nail moldings to the adjacent wall, not the flooring. Clean, sweep, and vacuum installed flooring before use. Please note, stapled or nailed-down products are not warranted against squeaking or popping sounds.

AFTER INSTALLATION:

1. Inspect the completed floor for any scratches, nicks and minor gaps. Use touch-up kit, filler or wood putty as needed.
2. **CRITICAL FOR DRY CONDITIONS!** After installation it is important to maintain the environmental conditions in the home within the ranges outlined in these instructions (see *PRE-INSTALLATION / JOBSITE REQUIREMENT, Section B on page 1*). Failure to keep the humidity and temperature within the recommended ranges can result in damage to the floor.

E. CARE & MAINTENANCE

You have purchased a high-quality flooring product with a UV Urethane finish which is ready for installation and does not require any special treatment directly after installation.

NEVER use a wax or oil-based cleaning product on a Urethane finish. *Colorado Mountain Collection recommends Arboritec or Loba cleaning products.

All-purpose cleaners are **not** recommended as they can dull your floor's finish or leave a hazy residue.

Today's hardwood floors are quick and easy to maintain; and with a little preventative maintenance, can look beautiful for years to come. All hardwood floors should be cleaned regularly. Simply sweep, dust mop, or vacuum to remove grit and dirt. When necessary, clean floor with Arboritec or Loba hardwood floor cleaning products. Avoid using a wet mop as over time this can damage the finish.

DO's:

- Sweep, vacuum, or dust mop regularly.
- Immediately wipe up liquid spills with cloth or absorbent paper towels and dry it. Do not allow liquid to pool and seep into the joints of the flooring.
- Maintain with Arboritec or Loba hardwood floor cleaner for un-waxed/un-oiled finishes.
- Periodically (monthly or bi-weekly) clean the floor using commercial cleaners specially prepared for timber flooring (Arboritec or Loba). Carefully read and follow directions on the package. Normally these cleaning solutions are applied by using a mist spray bottle and remove with an active fibre mop.
- Use felt protectors or furniture coasters under heavy furniture.
- Close curtains or blinds to limit direct sun exposure.
- Maintain room temperature (60-80°F).
- Maintain relative humidity in room/building between 30-50% year-round.
- Caster wheeled chairs should have wide rubberized casters.
- A protective mat should be placed under office chairs.
- In areas with icy or snowy winters, extra protection against **salt** and **grit** may be needed.
- Place mats and throw rugs at doorways, exteriors and interiors to help prevent the tracking of grit, dirt, and sand.
- Remember that cleats, sports shoes and high heels can dent any floor surface.
- If you have animals indoors, ensure that their nails are properly trimmed and that any urination or defecation is promptly cleaned and the area immediately dried.
- Place an area rug in front of the kitchen sink to catch water.

DON'Ts:

- Use oil base soaps.
- Use thinner or solvent liquid to clean parquet flooring.
- Use paste wax-based products (NEVER wax a urethane finished floor).
- Use normal household cleaning products or scouring pads for spot cleaning and general cleaning. These will damage the floor surface.
- Drag sharp wooden legs or metal furniture legs as it can scratch/ dent hardwood floors.
- Expose to direct sunlight for extended periods of time as it may dry/ fade natural wood.
- Use steam cleaners or mops. They are not recommended for use on natural wood flooring and will severely damage the coating and floor.
- Place porous flower pots or vases on the floor.
- Use steel wool or scourers.
- Move heavy furniture without protecting wood flooring by slipping a piece of cloth or pile under the legs or bottom of items.
- Wet-mop a wood floor. Standing water can dull the finish, damage the wood, and leave a discoloring residue.
- Use mats with rubber base as it may leach and stick onto timber flooring.
- Carpets or floor covering mats should not be placed immediately on to the timber flooring. Timber flooring will change over time and equalizes to its surroundings. Allow for 8 to 12 weeks before any carpets are placed to avoid color differentiation.

COLOR CHANGE: Normal exposure to sunlight, heat, air conditioners, etc. will bring about natural changes in the original color as the floor ages. Try to protect floors from excessive sunlight exposure by use blinds or drapes. When some areas of the floor are covered, as in large furniture pieces and area rugs, the change under these pieces can be lighter than the surrounding floor, as they are not exposed to the same conditions. This is normal and is not a defect. Rotating the position of area rugs and furniture from time to time will allow the covered areas to slowly adjust in color to the surrounding floor.

SURFACE CHECKS: During the winter months of low humidity, minor surface cracks (checks) may appear in wood flooring, then often close up again in the summer months when the humidity is higher. This is a normal characteristic of natural wood and not a basis of a complaint against the manufacturer, especially if there is no structural failure. To minimize checking, follow the guidelines for maintaining the environment in the home on *pages 1 and 2*.

SEASONAL GAPS: Seasonal gapping can be expected, especially on wider planks. This is normal and not a defect. Throughout its life wood will naturally expand and contract in response to the wet and dry seasons and also from the environmental conditions in the home. To keep these dimensional changes to a minimum, maintain the home temperature and relative humidity within the range outlined in *Section B, Pre-installation/Job Site Requirements on pages 1 and 2*.

NOISY FLOORS: Minor, occasional noise (such as squeaking) within the flooring is inherent to all hardwood flooring installations and can occur as environmental conditions change with the seasons.

**For warranty information, additional maintenance details,
questions, or concerns, please call:**

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