

Installation Instructions for Angle/Angle Laminate Flooring Products (rev 06.2023)

Read entire installation instruction sheet prior to beginning installation. Improper installation of the flooring or deficiencies related to site conditions may result in failure of the installation and will void your warranty. Owner/installer assumes all responsibility for final inspection and acceptance of product prior to installation. Always reference the most current manufacturer's installation recommendations.

Job-site Evaluation:

Calculate the room size prior to installation. Add 10% to total flooring quantity needed to cover floor surface for cutting waste.

Determine the direction the floor will be installed. It is recommended that the flooring be installed parallel to the longest outside wall or parallel to the main light source for optimal appearance.

Expansion space is required for all installations. Allow 1/4" expansion space for at all walls and vertical obstructions (cabinets, doors, fireplaces, etc.). If the installation exceeds 40 lineal feet in any direction, an additional 1/8" of expansion space is required. Expansion space will be covered with base or quarter round/shoe moldings that are affixed to the wall. Never affix moldings to the floor. Door jambs or casings must be undercut to allow for required expansion space and to allow the flooring to float freely. Use of transitional molding in doorways is recommended.

Ensure that subfloors are dry prior to onset of installation and that a moisture barrier is installed between the ground and subfloor. Concrete should be cured and tested for moisture using appropriate moisture test. Document subfloor moisture readings prior to installation. Use of 6-mil polyethylene vapor barrier is required between the laminate floor and subfloor when moisture conditions exceed 4.0 on a concrete moisture meter. It is the responsibility of the installer to determine if the subfloor is dry enough for installation.

While the flooring is resistant to water, it is not a moisture barrier. Temporary exposure to topical moisture (72 hours) does not affect the integrity of the floor, however prolonged exposure to moisture in the subfloor and environment can lead to mold, moisture related damage, or unhealthy indoor air quality. Although laminate floors are resistant to moisture, they are not to be considered moisture barriers. Manufacturer is not responsible for moisture related site conditions, or damage to flooring or surrounding structures resulting from moisture.

When installing in bathrooms, expansion space should be filled and sealed with a good quality silicone caulk. The expansion space can then be covered with molding. Do not install cabinets on top of flooring.

Substrate must be properly prepared, clean and free of dirt, debris, adhesive, or any contaminants; structurally sound with no deflection; and level to within 3/16" over a 10-foot radius (4 mm over a 300 cm radius). Level high spots and fill low spots with a Portland-cement based leveling compound.

We recommend flooring be stored for a minimum of 12 hours prior to installation in the area where it is to be installed. Room temperature and relative humidity must be consistent with normal, year-round living conditions for at least 14 days prior to installation. Temperature must be maintained between 65-85 degrees F with relative humidity range between 30-50% before, during and after installation. Laminate flooring should NEVER be installed outdoors, or in an area which does not have consistent year-round temperature and humidity controls suitable for normal living conditions.

Store, transport, and handle the flooring in a manner that will prevent damage. Store cartons flat, never on edge or standing.

Carefully examine each piece of flooring for visible defects prior to installation. Ensure there is sufficient natural or artificial lighting for thorough inspection of the flooring for finish, color, texture, and sheen. Do not install any piece of flooring that may be considered questionable in appearance or quality. Installer assumes all responsibility for acceptance of flooring installed with visible or manufacturing defects.

Work from 2-3 cartons at a time to insure the best representation of pattern, color, and design. Check cartons to ensure that the item number and lot number are the same for all material to be installed. Manufacturer is not responsible for color or sheen variation when material from multiple lots is installed.

When installing laminate flooring with attached pad, no additional underlayment should be used. Underlayment for use with laminate products without pad attached must be specifically designated for use under laminate flooring with a maximum thickness of 1.5 mm. Follow manufacturer's instructions for installation.

Tools needed:

Tapping block, pull bar, tape-measure, pencil, chalk line, miter saw, utility knife, rubber mallet, expansion spacers, 6-mil polyethylene vapor barrier (for concrete installations). Use of a small bristle brush for cleaning debris left from milling the locking joints will ensure a tight fit of the pieces.

Acceptable Subfloors:

All substrates listed must be properly prepared and meet certain requirements for suitability: Interior grade 1/2" plywood; 40 lb density particleboard; 3/4" OSB; existing hardwood floor (sound and well bonded); concrete; existing ceramic tile (well bonded); existing resilient/vinyl flooring (single layer, fully adhered, well bonded; not cushion or foam backed).

Subfloor Preparation:

All subfloors should be inspected prior to installation, and must be smooth, clean, dry, structurally sound, and free of dust, dirt, oil, or any other contaminant.

Concrete subfloors must be at least 90 days old and fully cured. Concrete must be free of moisture or high alkalinity, with a minimum of 6-mil poly film moisture barrier between the ground and the concrete. Concrete must be pH neutral prior to installation. Moisture levels in concrete should be tested according to ASTM F2170-2 (standard test method for determining relative humidity in concrete floor slabs using in situ probes) with a moisture content not exceeding 5 pounds per 1000 sf; or ASTM F1869-98 (standard test method for measuring moisture vapor emission rate of concrete subfloor using anhydrous calcium chloride – CM method) with a maximum permissible moisture content of 2.0%.

Manufacturer does not warrant or guarantee unsatisfactory installations due to the presence of excessive alkali, moisture, or hydrostatic pressure in subfloors.

Concrete should be dry, clean, and level to within 3/16" in a 10-foot radius. Use a quality Portland cement based leveling compound to fill or smooth any irregularities in the subfloor. Level low spots and grind high spots to ensure floor is level.

Wood and composition panels, including plywood, OSB and particle board can be used, provided they are smooth, flat, structurally sound, and free of deflection. Wood subfloors shall have at least 18" of well-ventilated space below. The ground under crawl spaces must be covered with 6-mil poly film to reduce moisture vapor transmission. Wood subfloors (plywood, particleboard, OSB) must be dry and structurally sound. Wood subfloors must be double construction or equivalent, with a minimum thickness of 1", such as APA rated underlayment grade plywood with a fully sanded face that is free of voids. Nail or screw loose subflooring every 6" along joists to secure. Level low spots, and sand down any high areas to ensure levelness of the substrate. All wood substrates should be prepared according to the latest revision of ASTM F1482 Installation and Preparation of Panel Type Underlayment to Receive Resilient Flooring.

Laminate flooring may be installed over some existing floor covering materials. Existing resilient floor covering must be smooth and consist of a single layer of non-cushioned flooring which is well adhered to the subfloor. Use embossing leveler to smooth the surface and prevent telegraphing.

Warning: Existing resilient floor coverings and black asphalt adhesive may contain asbestos, asbestos fiber, or crystalline silica. Do not sand, scrape or abrade these materials. If removal of existing resilient floor covering is necessary, be certain that all precautions are taken, and proper procedures are followed. For information regarding proper removal procedures in the US, please refer to "Recommended Work Practices for the Removal of Resilient Floor Coverings" published by The Resilient Floor Covering Institute.

Suspended hardwood floors that are smooth and square edge without texture, secure and well bonded to the wood subfloor. Repair any loose boards or squeaks prior to installation.

Ceramic tile, terrazzo or marble must be secure and well bonded to the subfloor. Grout lines should be filled with Portland cement based leveling compound.

Do not install over carpet, perimeter glued resilient flooring, resilient tile flooring that is below grade, cushion-backed resilient flooring, or hardwood flooring installed directly over concrete.

Laminate flooring may be installed over hydronic in-floor radiant heat using the following guidelines. The complete system must be operational at least one week prior to installation. The system should be turned off 72 hours prior to installation and remain off 72 hours after installation is complete. After this timeframe, gradually return system to normal room temperature setting in increments of 5 degrees. Subfloor surface must **never** exceed 80 degrees F throughout the life of the floor. Flooring should never come in direct contact with the heating system. All other standard installation instructions apply.

Sweep or vacuum the subfloor to remove any loose dust or dirt particles.

Starting the Installation:

Before starting, first measure the width of the room, and divide the room's width by the width of the plank. If the last row of planks will be less than 2" (50 mm) wide, you will need to cut the first row of planks in such a way that the first and last rows will have the same approximate width. If the installation will exceed 40 lineal feet in any direction, additional expansion space will be required. T-moldings may be used in doorway or intersections to allow for increased requirements for expansion space.

Expansion spacers should be placed along all walls, and at all vertical obstructions (walls, cabinets, fireplaces, etc.), and remain in place until installation is completed.

You should begin your installation in the left-hand corner of the room. Measure the same distance from the wall at several points and snap a chalk line. The distance you measure from the wall should be the width of the first row of planks, plus $\frac{1}{4}$ " for required expansion space. Expansion spacers should be placed along all walls, and at all vertical obstructions (walls, cabinets, fireplaces, etc.), and remain in place until installation is completed. Adjacent planks should be staggered, with at least 12" or 25% of the length of the plank between end joint of adjacent planks. No plank less than 12" should be installed. Avoid brick like pattern on alternating rows.

It is very important that the first row is installed properly. If the starter row is cut, make certain that you have a clean edge to line up against the wall. If the starting wall is out of square, it will be necessary to scribe the first row to match the wall, allowing the opposite side of the row to present a true square base for the rest of the floor. When the first row is complete, you must have a straight, even base established.

Begin with a full-length plank. Position the tongue of Plank 1 against the wall in the left corner of the room. Be sure that a $\frac{1}{4}$ " spacer is in place between the walls and the plank to maintain required expansion space. The first row of planks will have the groove edge facing outward into the room.

Use a full-length piece for Plank 2. Align the tongue on the short side of Plank 2 with the groove on the short side of Plank 1 and lock into place. Continue installation of row 1 in this manner, keeping the planks in alignment and maintaining the expansion space with spacers. When you reach the end of row 1, you may need to cut a plank to complete the row. Do not use any plank shorter than 8" in length.

To start the second row, use the cut from the last piece in the first row if it is at least 8" in length. Line up the first plank in the second row with Plank 1, making sure that a $\frac{1}{4}$ " expansion spacer is in place between the wall and the end of the plank. Insert the tongue on the long side of the first plank in the second row into the long side of the groove on Plank 1, while holding the plank at a 30-degree angle from the floor. Make sure that there is no gap between the long side of plank 1 and the first plank in row 2. Keep this plank at its natural angle slightly raised off the subfloor. Use a scrap piece of flooring to support the row if needed. Continue installing full boards in the second row by angling the short end of the next board in the row to lock into the previous row and overlapping the groove of the boards in the previous row. Angle up and push forward until the boards lock together. A tapping block may be necessary to lock in place. Make sure that there is no gap on the long or short side of the plank. The plank is properly engaged when no gaps are visible, and the planks are flush across the top surface. After the row is installed, press or walk all boards flat to the subfloor before beginning the next row.

Continue to install remaining planks and rows in this manner. Planks should be staggered, with at least 12" or 25% of the length of the plank between end joint of adjacent planks. No plank less than 8" should be installed. Stagger planks to avoid installing in a brick like pattern on alternating rows.

When installing the last row, you may need to cut the width of the planks.

When installing laminate floors under a door jamb, the top lip of the groove may need to be reduced in size. Using a small plane or utility knife, shave off the ledge of the groove edge. After the edge is trimmed, place the plank into place and tighten with a pull bar to check fit, making certain that the required expansion space is maintained, and flooring is not pinched. Remove plank and place a bead of wood glue on the bottom lip of the groove. Reinsert the tongue into the groove and tighten again with the pull bar. Secure plank until glue is dry with 3M Delicate Surface Painters Tape 2080. DO NOT use masking tape or duct tape as they may damage the surface.

Once installation is completed, remove spacers, and cover the expansion space with trim. Do not affix trim to the floor as this will prevent free movement of the floor. Thoroughly vacuum floor and clean with pH neutral cleaner specifically formulated for laminate flooring.

Preventive Care:

The easiest way to maintain the optimal look and performance of your floor is to reduce the amount of dirt, grit, and moisture with an effective barrier mat. This should be cleaned regularly. The use of rubber-backed or coco-fiber mats is NOT acceptable, as they are known to stain resilient floors.

Never slide heavy furniture or fittings over an unprotected floor. Severe scratching or damage may occur as a result. The floor should be protected from wheels, casters or feet of fittings and furniture, avoiding rubber products, which may stain the floor. Use hard plastic or felt pads under heavy furniture to prevent point loads. Non-staining felt pads can also be used, provided they are changed on a regular basis to prevent dirt, debris, and grit build-up. Wide, non-staining type W casters at least 2" in diameter, or floor protectors should be used on rolling furniture, such as office chairs to prevent damage to the floor.

Cabinets or heavy equipment should never be installed or placed on top of the flooring. Furniture should have evenly distributed weight not exceeding 400 pounds, with weight of point loads not exceeding 100 pounds each. Ensure distribution points are not directly positioned over the side or end joint of plank.

Furniture polish and window cleaning agents should be applied directly to a cloth to avoid overspray or spillage onto the floor. Contact with some agents, such as silicone, will make the floor surface extremely slippery, which may result in accidents.

Regular Maintenance

Sweep or vacuum (with raised beater bar or setting for hard surface or flat floors) regularly to remove dust and loose debris. Clean with pH neutral cleaner specifically formulated for use on laminate floor covering in accordance with the manufacturer's instructions and allow to dry. Always remove excess moisture to prevent slip and fall hazards. Do not use soap-based detergents, caustic, or abrasive cleaners.

Most cleaning agents will not harm the floor; however, all residue of cleaning agents should be removed immediately to avoid discoloration. The following substances may stain or discolor resilient flooring: tar, nail-polish, varnish, some spices, shoe polish, lipstick, solvent-based paints, rubber mats, coco-fiber mats, asphalt, permanent markers, crayons, hair dye.

Additional considerations for floor care:

- Never use a steam mop on the flooring. The use of steam mops may cause damage to your floor.
- Always use clean floor care applicators. Use of dirty applicators redistributes the dirt throughout the floor surface.
- Do not mix cleaning products from different manufacturers – they may not be compatible.
- Wipe up spills immediately.
- Take precautions to prevent dark rubber from coming into contact with the floor.
- Protective mats are recommended under castor chairs or wheeled furniture.
- Never deviate from the manufacturer's recommended instructions for use of maintenance products.
- Use warning signs to advise that cleaning is in progress – damp floors are slippery and may present a slip/fall hazard.
- Protect against exposure to direct sunlight through the use of curtains, blinds, or solar film to protect against thermal dimensional changes and discoloration of the flooring.

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