Installation Instructions

Angle-Angle Click Floating Luxury Vinyl

Thank you for choosing one of Revolution Mills' click floating luxury vinyl products. Properly installed and cared for your new flooring will be easy to maintain and will keep its great look for years. If you have questions or comments, please visit us at www.revolutionmills.com.

<u>Acclimation of Material before Installation</u>

All areas where flooring will be installed should have a working heat and air conditioning source operational a minimum of forty-eight (48) hours prior to installation and remain in operation during and after installation. Conditions should be at the same temperature and humidity level expected during normal use (between 65-85 degrees F with a relative humidity no greater than 65%). Ensure subfloor and flooring are fully acclimated to these conditions for a minimum of 48 hours prior to installation. For best results, open the cartons at the beginning of the acclimation period.

Acclimation is important because of the potential for extreme differences in temperature and humidity between the flooring product and job site. This may result in gapping, cupping or buckling or joints which are difficult to properly engage. Improper locking of the flooring may cause joints to be distressed resulting in a "peaked" appearance, delamination due to ledging, separation of joints from normal environmental temperature changes, cupping or side joint failures.

Pre-Installation Jobsite Requirements

Revolution Mills flooring cannot be held responsible for site conditions that do not conform to requirements as indicated in these instructions including but not exclusive to vapor transmission, moisture permeation, contaminated or damaged subfloors, etc.

Floating vinyl floors should be protected from direct sunlight and not exposed to direct sunlight for extended periods of time. Excessive temperatures will cause the product to expand and potentially buckle. Revolution Mills recommends blinds, drapes, window tinting/films or suitable window coverings in areas where there is a large exposure to direct sunlight.

It is the installer's responsibility to examine the flooring prior to installation for color, finish, glossiness/sheen and quality, and to ensure that jobsite and subfloor meet the requirements of these instructions. Ensure adequate lighting for proper inspection. If flooring is not deemed acceptable, contact your supplier immediately for resolution.

Revolution Mills cannot be held responsible for flooring installed with visible defects.

Subfloor Preparation

Warning: If the existing resilient flooring covering is being removed, see current edition of the Resilient Floor Covering Institute publications recommended work practices for removal of resilient floor coverings for instructions on removing all resilient floor covering structures.

All subfloors must be clean, smooth and level to within 3/16" in 10 ft., and dry. Dust, scale, and loose particles must be removed. The surface must be free of solvents, paint, grease, oil, wax, alkali, sealing or curing compounds, and any other foreign material.

Revolution Mills click floating floors are designed to "float" over the subfloor. Although Revolution Mills rigid plank products are more forgiving when installed over uneven subfloors, proper preparation of the subfloor is a critical part of a successful installation. Roughness or unevenness of the subfloor may telegraph through to the flooring product resulting in an unsightly surface and can cause excessive wear on high spots.

Concrete on or above grade must be free of moisture or high alkalinity. A concrete slab shall be cured a minimum of 90 days before performing moisture tests prior to the installation of your new flooring. The concrete may require additional drying time dependent upon local environmental conditions.

Revolution Mills requires a 6 mil polyethylene film moisture barrier sheeting to help prevent the growth of mold and mildew in addition to slowing down the rate of moisture vapor transmission.

All wood subfloors shall have at least 18" of well-ventilated space below. The ground under crawl spaces must be covered with 6-mil polyethylene sheeting to reduce moisture vapor transmission. Wood floors must be double construction or equivalent, with a minimum thickness of 1", such as APA underlayment Grade Plywood without voids, and with a fully sanded face.

- Concrete/Screeds: All cracks and joints should be filled. The subfloor should have a
 moisture reading of less than 80% RH (Reference: ASTM F 2170-02 Standard Test
 Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes).
- Wood Floors: Wood floors must be solid, flat and smooth with little flexibility. All loose boards must be firmly fastened.
- Existing Resilient Floors: Existing resilient tile and sheet vinyl floors must be in good condition and thoroughly bonded to the structural floor. The exception is that any tile or sheet that is of a soft cushion construction must be removed.

• Existing Ceramic Tile: Grout lines must be skim coated with a floor leveler. If you install the flooring over an existing floor that has an embossing or grout line on it, we recommend you skim coat with a floor leveler. Check for any dips or humps in the subfloor that can create a void or peak underneath the floor, the acceptable 1/8" in 10' tolerance. If found, please fill in and level the subfloor with embossing leveler. For high spots, grind down the peak or simply.

knock them off with a hammer and chisel and fill in the holes.

Revolution Mills cannot be held responsible for failure of the subfloor.

Radiant Heat: Subfloors should be operating for at least 3 weeks prior to installation to drive out moisture and calibrate temperature settings. Maximum operating temperature should never exceed 85°F. Radiant heat components must be a minimum of 1/2" away from the flooring and embedded into the subfloor.

Installation

Do not secure individual planks of the flooring to the subfloor as it is designed to be a floating floor. All doorjambs should be undercut, and cabinets cannot be installed on top of the flooring. Wall moldings and transition strips should be installed at any exposed plank edges but should not be fastened through the planks.

IMPORTANT: The maximum room size suggested is limited to 30 linear feet with perimeter expansion space of 5/16". For installations larger than 900 square feet or runs longer than 30 linear feet, control joints (transitions) must be installed with a minimum of 5/16" gap between the installed molding. Any linear footage between 30 and 50 linear feet should have an additional expansion up to ½ inch around the perimeter of the flooring to allow for potential movement which is usually the width of the flooring space.

- 1. First, determine the orientation of the flooring in the area. Typically for plank products, the flooring runs the length of the room. There may be exceptions since it is all a matter of preference.
- 2. To avoid narrow plank widths or short plank lengths near the walls/doors, it is important to do some preplanning. Using the width of the room, calculate how many full boards will fit into the area and how much space remains that will need to be covered by partial planks. Divide the remaining space by two to calculate the width of the partial planks. Do the same along the length.
- 3. Note that if the first row of planks does not need to be trimmed in width, it will be necessary to cut off the unsupported tongue so that a clean, solid edge is toward the wall.

- 4. 5/16" expansion gaps should be planned for and maintained from the wall during the installation. This will allow space for the natural expansion and contraction of the planks.5. The planks should be installed from left to right. From the top left corner of the room, put the first plank in place so that both the head and side seam grooves are exposed.
- 6. Install the second plank in the first row by angling the short side tongue into the short side groove of the first plank. Continue installing additional planks along the first row using the same angling method. Make sure to align the planks to prevent gaps throughout the installation.
- 7. To start the second row, cut a plank that is at least 6" shorter than the first plank in the first row (you may use the left over from the last plank of the first row). Then install this first plank by inserting the long side tongue into the groove of the plank in the first row.
- 8. Install the second plank in the second row by inserting the short side tongue into the previously installed first plank short side groove.
- 9. Align the plank so the long side tongue tip is positioned just over the groove lip of the plank in the first row.
- 10. Using gentle force and at a 20–30-degree angle, push the long side tongue into the groove of the adjoining plank by sliding along the short side seam. You may need to lift the plank to the left of it slightly to allow for the "sliding" action.
- 11. The remaining planks can be installed in the room using the same technique. Make sure the required expansion gaps are maintained against all fixed vertical parts (such as walls, doors, cabinets etc).
- 12. The planks can be cut easily with a utility knife, just score the top of the plank and snap the plank in two.

Do not install Revolution Mills flooring over expansion joints.

Repairs

In the unlikely event that a plank is damaged for whatever reason, the simplest method is to disconnect the plank carefully (protecting the tongue and groove edges) until the damaged plank can be removed. Then replace the damaged plank with a new one and reassemble the disconnected planks. This typically works for planks that are closest to the two long walls of a room. For damaged planks that are not close to the perimeter, you may have to remove the damaged planks and insert new pieces without the short and long end grooves.

Floor Maintenance and Protection

- Furniture should be moved onto the newly installed floor using an appliance hand truck over hardboard runways.
- Avoid exposure to long periods of direct sunlight. Close blinds or drapes during peak sunlight hours. Floor covering subjected to excessive heat and light is subject to thermal degradation. Use appropriate precautions to minimize potential effects on the floor covering.
- Oil or petroleum-based products can result in surface staining. Do not track asphaltdriveway sealer or automobile oil drips onto the vinyl floor covering.
- Caster wheeled chairs should have wide, rubber casters. Protective mats are required under office chairs.
- Use non-staining mats. Rubber may discolor the floor.
- Frequently moved furniture should be equipped with felt pads to avoid scratching the
 floor. Heavy furniture and appliances should be equipped with non-staining large
 surface floor protectors. Furniture with castors or wheels must be easy swiveling, large
 surface non-staining and suitable for resilient floors. Do NOT use ball type castors as
 they can damage the floor.
- Use floor protectors under furniture.
- Use walk off mats at entrances to prevent dirt and grit from being tracked on to the floor.
- Sweep or vacuum the floor regularly to remove loose dirt. Do NOT use vacuums that use a beater bar or turn beater bar off.
- Do NOT use electric brooms with hard plastic bottoms with no padding.
- Damp mop as needed using clean water and a diluted floor cleaner suitable for Luxury Vinyl. Do NOT use harsh cleaners or chemicals on the floor. Do NOT use abrasive scrubbing tools. Do NOT use detergents, abrasive cleaners or "mop and shine" products.
- Vinyl flooring, like other types of smooth floors, may become slippery when wet. Allow time for floor to dry after cleaning. Immediately wipe up wet areas from spills, foreign substances or wet feet.