

AVAIRE INSTALLATION INSTRUCTIONS

HELPFUL TOOLS

The tools indicated on this page are helpful for an Avaire installation, but, not every tool listed is necessary. Always follow the tool manufacturer's safety requirements and keep appropriate safety guards in place.

- Safety Goggles
- Ear Protection
- Rubber Mallet
- Tapping Block
- Rubber-coated Pull Bar
- Tape Measure
- Utility Knife
- Straight Edge
- Speed Square
- Wall Spacers
- Undercut Saw
- Wet Saw (w/Diamond Blade)
- Angle Grinder (w/Diamond Blade)
- Tile Cutter

APPLICATIONS

Suitable Applications

- Over vinyl, wood, concrete, ceramic.
- On or below grade.
- Sub-floor with a thickness of ¾" or more, installed over 16" on center. The deflection must not be greater than 1/360 of the span when measured under a 300 lb concentrated load. (See ASTM C 627).
- Sub-floor within a tolerance of ¼"-10' or 1/8"-6'. A straight edge should be used to determine whether floor is within tolerance.
- Radiant heat. Please note, Avaire should not be installed above heating systems that could expose the grid to temperatures above 110° F (43°C).
- 3-Season rooms not exposed to moisture.

Unsuitable Applications

- Carpet or cushioned vinyl.
- Unstable sub-floor.
- Shower floors, saunas, and steam rooms.
- Outdoor environments.
- Walls.
- Under wood-burning stoves.

FLOOR PREPARATION

- Remove existing carpeting, padding, base, or quarter round moldings. Do not remove existing resilient floor covering as it may contain asbestos. Please refer to the RFLI publication recommended work practices for removal of resilient floor coverings.
- Identify high and low spots that are out of tolerance. High spots should be planed, and low spots should be filled.
- Check all door and appliance clearances as well as transition heights. An Avaire tile has a height of 9/16". Cut or plane the bottom of doors to accommodate change in floor height. Undercut door casings and jambs. A scrap piece of tile can be used to guide the saw blade.
- Sub-floor must be clean, smooth, dry, and structurally sound.

Note: The Avaire Standard collection requires the installation of Avaire Underlayment. Please install Avaire Underlayment at this time, following the instructions included in the packaging, or on the website. The Avaire CHOICE and Avaire Select collections do not require the installation of Avaire Underlayment, and can be installed directly over the existing sub-floor.

ASSEMBLY

- Tiles can be interlocked using a white-headed rubber mallet and tapping block.
- Tiles may be installed one at a time, or in rows. System is non-directional, and can be installed to the right or to the left. A tile *cannot* be installed between two other tiles.
- Ensure interlocking tabs are fully engaged.
- If tiles prove difficult to interlock together, mix water and dish soap in a spray bottle and moisten tabs.
- Tile rows can be shifted for perfect alignment using a rubber mallet and rubber-coated pull bar. Grout joint intersections should form a perfect cross.
- Tiles can be disengaged in 2 ways:
 1. Lifting one tile upward
 2. Using a rubber-coated pull bar

LAYOUT/PATTERNS

- Tiles can be installed in straight, diagonal, staggered, or mixed size patterns.
- Installation can begin in the center of the room or at a wall. When beginning an installation along a wall, remove the tabs to allow for the ¼" expansion gap. Tabs can be removed using a wet saw, tin snip, or rubber mallet. It may be advantageous to begin an installation at a doorway or underneath an undercut.
- Due to the shade variation associated with porcelain, tiles should be mixed from several cartons as installed.

INSTALLATION

- Temperature of installation should be maintained above 32° F (0°C) and below 110° F (43°C).
- A 24-hour acclimation period is necessary if temperature variance from storage to job site is greater than 20° F (7°C).
- Tiles are designed to function properly with as few as 4 interlocking tabs. If 4 or more tabs are damaged, use the piece as a cut tile along the perimeter.
- Small cut pieces installed along the perimeter should be adhered using a premium construction adhesive.

MARKING/CUTTING

- Always follow tool manufacturer safety requirements and use appropriate eye and ear protection.
- Tiles may be cut using a wet saw, angle grinder or tile cutter. Please note: A tile cutter can only be used for making straight cuts.
- A ¼" gap is required along the perimeter to allow for expansion and contraction.
- When marking cuts:
 - Step #1: Measure distance between wall and the field tile, then deduct ½". This factors in 1/4" for the grout joint plus ¼" for the expansion gap.
 - Step #2: Mark the measurement on a tile, and proceed with cut. Please note: The protective slip sheet can be used for determining the size of tile cuts. Simply place a sheet where the tile is installed, and fold it where cuts are needed. The folding sheet can be used as a cutting template.
- When cutting tile using a tile cutter:
 - Step #1: Snap the porcelain.
 - Step #2: Separate the porcelain, and run a utility knife across the plastic.
 - Step #3: Snap the plastic tray.
- L cuts can be made using a wet saw or angle grinder. Curved, circular, or U cuts can be made using an angle grinder. Holes can be drilled using a high quality carbide designed hole cutter or diamond bit.
- Once cut, a tile can be installed along the perimeter using a rubber-coated pull bar.

TRIMS AND TRANSITIONS

- Base and/or quarter round moldings should be installed along the perimeter.
- A flush wood, overlapping vinyl, or overlapping metal stair nose molding is needed at stair edge.
- A wood or metal reducer is used to transition to a vinyl or concrete floor.
- A transition is not needed at carpet edge.
- A T-molding is used to transition to a floor of similar height.

REPAIR AND REPLACEMENT

- Replacing a tile:
 - Step #1: Remove grout from the perimeter of a broken tile.
 - Step #2: Cut the tabs at 3 of the 4 surrounding sides of the broken tile. This can be done using an angle grinder or high-speed rotary tool.
 - Step #3: Remove the broken tile.
 - Step #4: Cut the upward-facing tabs of the new tile on 3 of 4 sides.
 - Step #5: Apply a layer of premium construction adhesive to the back of the new tile.
 - Step #6: Place the new tile into position, interlocking the side with remaining tabs.
 - Step #7: Apply pressure to ensure full adhesion.
 - Step #8: Once adhesive cures, apply Avaire Flexible Grout.
- Avaire may be disassembled and reinstalled in another location by pulling tiles apart, removing grout from the tabs, then reinstalling.

*Please visit www.avairefloors.com for answers to Frequently Asked Questions.