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The following guide provides a set of instructions for a specific installation that focuses on joining a pre-existing hexagon install with new square tiles. Many of the steps involved will be common to all projects. Some of these steps will not be relevant to your project or you may want to know more about an application not shown here. For more information related to your specific installation, please contact us.

## TOOL LIST

## Necessary

- Grinders and sanders - grit ranges depend on the substrate
- Disks for grinder or sander - diamond wheel, PCD, Zec
- Extension cords
- Tile roller
- Flooring or carpet knives - utility blades generally work the best
- 2 ft straight edge
- Blue chalk box (note: red chalk is permanent and blue will wipe clean)
- Hammer
- 5-in-1 tool or multi-tools
- Pencils
- Cordless or corded drill (for hole punching or relocating 3rd party fixtures)
- Dust masks
- Rags
- Acetone
- Stir sticks
- Roller frames
- Roller naps - 3/8" nap work best (1 per every 200 sq ft)
- Chip brushes - these are cheap disposable brushes used for cutting in
- Quart size cut buckets
- Pole extender for roller
- Push broom and corner broom
- Dust pan
- Duct tape
- Laser square for tile setting (if unavailable, use 6-8-10 method for determining the X and Y axis)
- Hole punches for drains
- Cordless leaf blower
- Tape measure ( $25 \mathrm{ft} / 50 \mathrm{ft}$ )
- Power source (plug-in source or generator)
- Hook blades


## Optional

- Tarps
- Wheelbarrow
- Bagster/dumpster depending on site conditions
- If weather is adverse, shelter/tents when needed
- Respirators for adhesive offgassing in enclosed spaces
- PPE (hard hat, ear plugs, gloves, etc.)


## SURFACE PREPARATION



Step 1: Pull chalk lines at the project perimeter to determine the grinding edge.


Step 2: Grind the concrete. Grind just up to the chalk line to prepare the area that will receive Life Floor. Grinding down the top layer of the concrete allows for proper adhesion.


Pull back the guard on the grinder to get a crisp edge along the chalk line.


Replace the guard as you follow along other surfaces.


Completely grind through the top layer of the concrete to reveal the clean slab below.


Tip: Attach grinder to a vacuum system to reduce ambient dust in the space and minimize clean-up required at the end of the preparation stage.


Grind right up to the edge of any pre-existing tiles. Move back the guard of the grinder to remove the top layer of the concrete at the tile edge.


Grinding is complete once the whole surface that will receive tiles has been addressed, making sure to grind up to all edges and chalk lines of the project area.


Step 3: Use a leaf blower to clear the surface of any dust or debris. Contaminants prevent the adhesive from properly bonding to the concrete and can lead to delamination after installation.


Step 4: Use acetone on a rag to thoroughly disinfect the surface. Acetone permeates the concrete pores to remove any remaining debris or fine particulates.


Step 5: Once preparation is complete, lay out tiles at the installation start point. Measure distances to determine the initial placement point that best utilizes tiles and matches the design layout.


Step 6: Measure and mark the center points of the slab at opposite edges and connect the points by snapping a center line across the project area.


Step 7: Measure and snap lines $12^{\prime \prime}$ off the center line on both sides. The 12 " offset line will determine the starting point for the installation.


For the project shown here, a line was snapped to create a cut line along existing hexagon tiles and prepare a clean tie-in point for the new square tiles.


Step 8: If needed, peel up any tiles previously glued down on the other side of the cut line and use a stiff putty knife (or a 5-in-1 tool) to get underneath the tiles for removal.

## ADHESIVE APPLICATION



Step 1: Start by shaking the can of adhesive well and flipping it upside down to ensure all components are mixed thoroughly.


Step 2: Use a mechanical paddle mixer to stir up the adhesive. If you don't have one on hand, a regular paint stir stick can be used to manually mix.


Step 3: Fill a sturdy paint tray and fully saturate a $3 / 8^{\prime \prime}$ nap roller.


Step 4: Use a 3" chip brush to distribute adhesive along the edges, being careful to only coat the concrete slab. Prevent the adhesive from touching any existing materials or tiles.


For the main portion of the install area, apply adhesive with a pole extension on the roller frame. Cover the concrete thoroughly with complete and even adhesive coverage.


The roller can be dipped directly in the adhesive can, but avoid debris like leaves getting into it. Ensure complete coverage and leave a $3^{\prime \prime}$ margin at the edges where Transition Strips will be applied later.


Step 5: Work out of the tray to apply adhesive to the backs of the tiles. Start from the middle and work to the edges for $100 \%$ coverage. Avoid the sides and top faces of the tiles.


10-20 minutes later, check to see if adhesive has cured. If it's gooey and transfers to your finger, it's still too wet. It's ready once it's tacky and doesn't transfer to your finger.

## LAYING TILE



Step 1: Use your hand to check that the adhesive on the surface is ready using the same method described for checking adhesive on the backs of the tiles in the previous section


Step 2: Align the first tile based on the starting point marked earlier starting at the corner and following along the chalk line and inside edge.


Step 3: Press down on the tile to make sure it's securely adhered to the concrete.


Step 4: Align the next tile with the outside edges of the previous tile.


Step 5: Use your thumb to work the tile into the joint in order to ensure a tight fit.


Step 6: Firmly press down on the tile to bond it to the substrate.


Step 7: In this case, when using square tiles to extend a previous hexagon installation, set the corner right along the chalk line and the edge of the older tiles.


Step 8: Work the tile along the joints, ensuring a tight fit.


Step 9: Set a new tile, allowing the excess to rest over the pre-existing hexagon installation. This will be trimmed and cut to specification with a knife.


Step 10: Cut through the top tile and run the blade along the existing edge. Be careful to only cut into the top tile while pulling away the excess with your opposite hand.


Step 11: Work the edge of the tile into the joint and down onto the concrete to ensure a tight fit.


Step 12: Continue placing tiles to align with existing edges. After each tile is applied, press down across the entire surface to ensure a tight bond.

## FINISHING DETAILS



Step 1: To create infill pieces at the perimeter of a staggered grid tile layout like this one, measure the 12 " mark from the edge of the prior tile.


Step 2: Lay a 24 " wide strip that is slightly too long starting at the mark. Work it into the joint of the previous tile and maintain a tight connection between the two.


Step 3: Press down on the outer edge, allowing it to flip up.


Step 4: There's a gap below this stair riser, so this piece is freehand cut a little long. A hook blade is used to ensure that only the Life Floor tile is cut in the process.


Step 5: Tuck the tile below the stair riser and use a 5-in-1 knife tool to work the pinch points down.


Step 6: As a different method to fill in the gap, measure the depth of the concrete at both sides.


Step 7: Mark the two points on the tile and connect by drawing a line along a straight edge.


Step 8: Measure the length of the infill piece and mark the tile. Connect the points using a straight edge to create cut lines.


Step 9: Cut with a large hook blade, keeping the tile lifted slightly. This prevents anything below from getting damaged. Ideally, use a cutting board if you have access to one.


Step 10: Place the tile piece, keeping joints tight on the inside.


Step 11: Run straight blade along edges of bump-out to cut tile on either side.


Step 12: Closely cut off the excess piece and press the tile down on either side.


Step 13: Tuck tile below the step using a putty knife for a clean finish.


Step 14: Using a similar method, place the tile piece, ensure a tight joint at the edge, and roughly cut off the excess while leaving the tile a little long.


Step 15: Take a straight blade and run it along the vertical points.


Step 16: Push the tile down and trim off any excess.


For edge applications, it's always good to run material a little long since it can always be trimmed back more and more. Pieces that are too short will need to be redone.


Step 17: Once again, tuck the tile below edge to ensure full coverage.


Step 18: Lay out Transition Strips by placing them along the perimeter of the concrete and marking where they land on the tiles. These edges will need to be trimmed.


Step 19: Transition Strips will be mitered at the corners, so it's important to fully lay out and mark their placement in advance. Pre-measuring also helps to keep spacing accurate.


Step 20: Once measured, cut lines along a straight edge. If you're right-handed, cut with excess to your right to create a natural bevel with the blade. Do the opposite if left-handed.


Step 21: Continue to cut along all lines from transition strip layout.


Verify the distance is accurate where Transition Strips will end.


Step 22: Pull away excess tile to prep for Transition Strips. Limiting adhesive at the edges earlier in the process prevents the need for intensive tear-out.


Step 23: Use a 5 -in-1 tool to remove excess tile that is glued down. Continue this process around the entire project perimeter.


Step 24: Once the excess tile has been removed from the edges, use a hand roller to work down all remaining tiles. The smaller size helps to press the tile into the adhesive bond.


Step 25: Use a chip brush to get $100 \%$ adhesive coverage at the edges for Transition Strips. Keep the brush on the concrete, ensuring to not get adhesive on the sides or tops of the tiles.


Step 26: Apply the adhesive to bottoms of Transition Strips using a brush. Ensure even and complete coverage on each portion, ensuring adhesive does not get on the sides of the strips.


Step 27: Measure and mark to continue the staggered pattern with Transition Strips.


Step 28: Place the transition strip down, butting it up tight against the edge of the tile.


Step 29: Place the perpendicular piece to lay over the first transition strip at the corner for mitering.


Step 30: Cut off any excess as needed, leaving enough length for the miter.


Step 31: Overlap both Transition Strips and cut through them at the corner simultaneously to create the miter. You can also measure using a speed square.


Step 32: Press down and ensure both joints line up tightly. Continue placing Transition Strips around project perimeter until it's fully finished.


Here's how this installation looked upon completion. If you have any questions about how to install Life Floor, please contact us.


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