

Stacked Stone Tile

Installation Guide





Installing stacked tile

Most adhesives, mortar, and other materials are compatible. However, you must read the printed instructions and cross-check limitations to make sure they are. **Inspect all materials before starting your installation.**

Substrate preparation

An installation is only as good as the foundation it rests on. While the preparation for installation will depend on whether the substrate is gypsum board (drywall), cement board, concrete masonry units, or plywood, make sure the substrate is structurally sound and free from any sealers or contaminants for both vertical and horizontal installations. The load deflection standard is L/720 for stone.

Tilebar Tech Tip:

- **Try the drip test.** Drip water on your substrate. If it's absorbed, it means your mortar adhesive will have both a mechanical and chemical bond. If the water beads up, there is a bond breaker on your substrate. This could be a wax or sealer and should be removed.
- **Use a straight edge and level.** According to ANSI A108.02, deviations on flatness of the substrate should not exceed 1/4 inch of change in 10 feet, or 1/8 inch for stone, with no bump greater than 1/16 inch.
- **Always check your adhesive instructions,** noting the suitable substrates and limitations.

Layout

Take accurate measurements of the space and develop a layout plan. To be sure the final look will meet your expectations, dry-lay your tile or create a mockup to confirm your layout and grout joint size. Locate all cuts and adjust layout as necessary. **Confirm the final layout, cuts, joints, and overall look.**

Use proper equipment to cut your tiles (wet saw, drill bits, snap cutter, or grinder). Be sure to follow all safety precautions and protections recommended by the

manufacturer. Blend tile materials to ensure consistency throughout the project area. With larger tiles, waste factor is high, and more material may be needed.

Tilebar Tech Tip:

- Lay out your mosaic sheets in a brick pattern if possible. This should help conceal the sheets' perimeters and help the installation blend together.

Adhesives and mortar

Make sure that the stone is not affected by moisture in the mortar, and use the proper directional troweling techniques and the proper trowel size.

Be aware of how the mosaic tiles are mounted to the sheets. The mortar needs to be in contact with the tile material, not the sheet mounting material, to meet the TCNA coverage specification. If the tiles are completely covered with fiber or adhesive, make sure the backing is compatible with the mortar.

Longest Edge Measurements	Suggested
Tile Size	Trowel Size
Mosaic Tile	1/8" x 1/8"
2" through 3"	1/8" x 1/8"
3" through 6"	1/4" x 1/4"
6" through 12"	1/4" x 3/8"
12" through 24"	1/2" x 1/2"

Note: If you are installing a tile with any edge longer than 15 inches be sure you are using a large-format mortar, specifically made for use with large and heavy materials.

Install overview

The instructions below are for reference only and based on traditional cement based grout. You should always follow the printed instructions on the packaging.

1. Mix the mortar according to instructions.
2. Clean the substrate with a damp sponge.
3. With the flat side of the trowel, "burn" the mortar into the substrate.
4. Trowel the material onto the floor or wall with the appropriately sized trowel in a consistent direction, leaving a ridged setting bed.
5. Lay tile in the mortar and flatten the mortar ridges by pushing the tile perpendicular to the trowel direction.
6. Install spacers or wedges as needed.
7. Make sure grout joints are clear of extra mortar materials.
8. Let system cure fully before grouting, usually 24 hours.

Tilebar Tech Tip:

- *Do not be concerned if, after the installation, the stone is discolored or shaded. Stone is naturally porous, and the mortar moisture may show through. This will eventually dry and return to the color the stone was in the box.*
- *Do not work too far ahead. Make sure that the mortar stays fresh and has not skimmed over.*
- *Minimum mortar coverages should be evenly distributed and cover 80 percent of tiles in a dry area and 95 percent in wet areas. Once you set tiles, pull up a couple to check for proper coverage.*
- *Directional troweling: <https://www.youtube.com/watch?v=Way5bMh-eYg&t=31s>*

Grout

Some stacked stones are mounted very tightly and do not require grout. However, if there are large gaps between the sheets, you may need to install grout or sealant to fill those joints. It is probably not necessary to spread grout over the entire installation, but this process should be evaluated by the installer in the field.

Grout can make or break a new tile project. A great grout job can aesthetically enhance a project, while a poor one can undermine even the best work. First, choose the appropriate grout joint size. Remember, smaller is not always better; how the mosaic tile is mounted to the sheet determines the grout joint size. Take a step back and make sure the size of the perimeter joints between sheets is the same as the joints within each sheet. If you can make out individual sheets you may need to adjust them. **Stone is naturally porous**, so you may want to consider using a grout release, a temporary, water-soluble, pre-grout coating, before grouting. This should make your grout clean up a lot easier.

Install overview

The instructions below are for reference only and based on traditional cement based grout. You should always follow the printed instructions on the packaging.

1. Mix the grout according to instructions.
2. Remove spacers as needed.
3. Use a grout float at a 45-degree angle to press in and fill all the grout joints.
4. Cut the grout off the top of the tile using the grout float, dragging it at a 90-degree angle diagonally across the tile as you would a squeegee.
5. Once the joints are full, dress them with a sponge or scrub pad.
6. After 15 to 20 minutes, wipe again with a clean sponge and clean water and let cure.
7. After the grout has dried, there will be a haze that can be buffed with dry cloth.
8. Limit use until fully cured, usually 24 hours.

Tilebar Tech Tip:

- *Use clean water, A LOT!*
- *Do not get too far ahead. Clean in a timely manner what you just grouted.*
- *Clean sponge often, typically one swipe, flip the sponge over and one swipe, then rinse the sponge clean. Repeat.*
- *Make sure the joints do not have dust or debris in them. Also, any thin set that has squeezed up needs to be removed.*

- *All installation must have movement joints. Use a color-matched acrylic or silicone sealant to provide movement protection. Movement joints are for all transitions, base, inside, and outside corners.*
- *Keep the project area clean. Even the lightest dust could permanently stain any uncured grout joints.*
- *Use the right grout for your specific installation:*
 - *Standard polymer modified grout*
 - *High-performance cement grout*
 - *Premixed grout*
 - *Epoxy grout*

Cleaning and sealing

Stone is naturally porous, so a stone-impregnating sealer should keep your installation protected. How often you need to reapply sealer will depend how high the traffic is in the area. Find a matching cleaner that will not remove the sealer. There are harsher cleaners available in case of an accident, but they must be used carefully by following all instructions. Always test a non-visible area before using a product on the whole space.

Tilebar Tech Tip:

- *Follow all manufacturer instructions closely.*
- *The more the area is used, the more often it will have to be cleaned and sealed.*
- *If an acidic cleaner is chosen, make sure you protect adjacent materials.*