

# WALL FINISHES



## Installing Glass Block Proven methods for a time-honored architectural element

BY TOM MEEHAN

Ten or 15 years ago, interior glass block was all the rage. I installed it regularly in bathrooms and kitchens and often as a design element in entries and living rooms. Glass block both lets in light and obscures visibility—all in the texture of a block wall. While glass-block installations here in the Northeast have become rarer, they are still common on the West Coast and in Florida.

I recently installed a freestanding glass-block partition as part of a walk-in shower. The glass-block wall helps keep an adjacent vanity dry while offering a modicum of privacy to the person in the shower. The installation methods I use haven't changed much since my first glass-block projects. As with most projects like this

one, proper preparation is the key to success.

The glass-block wall in this shower is nonstructural. It sits on the tile floor, attaches along one wall, and stops a couple of feet shy of the ceiling. We opted to cap the exposed edges of the block with limestone tile.

The most important thing to remember when installing glass block is to keep the courses plumb, level (both across the block and across the courses), and in plane. Also, always use the proper mortar and reinforcement, and don't try to install too much in one stint.

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Photos by Ryan Meehan

## INSTALLING GLASS BLOCK



The author lays out the glass block on the floor **(1)** and scarifies the floor tile with an abrasive wheel on an electric grinder **(2)**. After extending the layout up the wall and scarifying the wall tile, he cuts and removes enough tile **(3)** to expose the wall framing for attaching reinforcement **(4)**. He spreads a layer of modified thinset over the tile **(5)** and quickly checks the floor for level **(6)**.





Because glass block is nonporous and does not absorb moisture, the author uses a premixed mortar that contains lime and sand and is specially formulated for installing glass block (7). After spreading the mortar on the floor tile, he butters the 8x8 block on two sides (8). To keep the mortar from sliding off, the author holds the block at an angle (9) and then rolls it into place (10), pressing it into the mortar on the floor and on the wall. As he places each block, he gives it a tap with a rubber mallet to insure complete adhesion (11). Glass block is quite heavy, so the author installs only a few courses at a time and allows the mortar to set up overnight before starting additional courses. When scheduling glass-block projects, he tries to coordinate them with projects nearby that he can jump to while the mortar cures.



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The author continues the installation of the glass block for the first course, buttering each block and tapping it into place. When the course is finished, he checks to make sure the block is in plane and on the layout lines on the floor (12). Next, he checks to make sure the course is level along its length, tapping it down if necessary (13). The third and final check for each course is leveling across the block; again, he taps the block into line if necessary (14).



The author spreads a layer of the glass-block mortar on top of the first course and inserts plastic spacers that adjust to the width of the block—in this case, 4 inches (15). These spacers keep the horizontal and vertical joints at the recommended  $\frac{1}{4}$ -inch width. (The square plastic guides come off after each section cures.) He then installs the glass blocks for the next course, setting the blocks tight onto the spacers (16) and tapping the last block over to take out any slack from between the blocks (17).





After installing two courses, the author installs a stainless steel panel anchor (which comes in 16-inch lengths) to tie the glass block to the bathroom wall framing. He bends one end of the anchor, inserts the end into the pocket cut out earlier, and screws it directly to the wall framing, with the rest of the anchor resting on the block **(18)**. He then inserts spacers for the next course **(19)**.



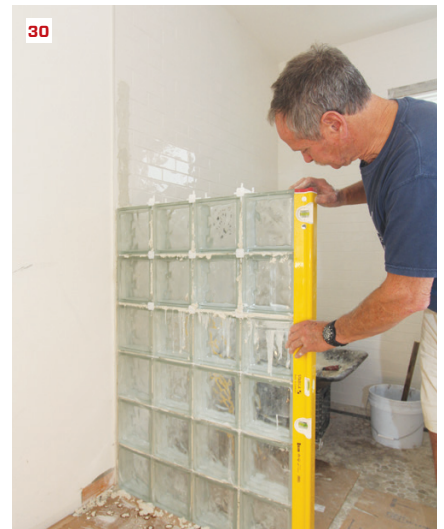
After installing the third and fourth courses **(20)**, the author rechecks the glass block for level **(21)**. He also checks the wall for plumb, making sure the block is also level across its width **(22)**, as well as in plane **(23)**. At this point, he scrapes the excess mortar out of the joints and lets the wall sit overnight to allow the mortar to cure.



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The next day, the author begins by attaching another panel anchor to the bathroom wall for reinforcement (24). He adds mortar (25) and then spacers for the next course (26). With four courses of the block wall completely solid, he continues installing the next few courses (27).



The author continues to check the glass-block wall every two or three courses for level (28) and plumb (29), as well as checking the end of the wall for straightness and plumb (30). He also adds panel anchors every two courses for the entire wall.



On the third day, the author installs the last few courses (31). Spreading the installation out over three days lets the mortar for each section fully cure before continuing the installation. After letting the final courses cure for 24 hours, he coats the edges of the glass-block wall with a layer of modified thinset as a base for the limestone cap that will finish the wall (32). For the cap, he rips 4-inch-wide strips of limestone from 12-inch limestone tile and rounds over the edges of the strips with an abrasive wheel on an electric grinder.



After the thinset coating on the edge of the glass-block wall has fully cured, the author spreads a second layer of modified thinset to install the stone cap tile (33). He then butters the back of the stone tile (34) and presses it into the fresh thinset (35). Starting with a partial tile at the bottom lets him use a full tile at the top, and using plastic wedges helps to maintain even grout lines between the tiles (36). He continues installing the stone strips across the top of the wall to finish wrapping the edges of the glass block (37).



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After letting the mortar cure for 24 hours, the author spreads sanded grout on the glass block using a rubber-edged grout float **(38)**. Diagonal strokes ensure that the joints are filled completely. He lets the grout sit for 15 minutes or so and tests it with his finger before beginning the cleanup **(39)**. He gives the block an initial wipe with a clean sponge, rinsing the sponge often in clean water **(40)**, and then wipes down the wall a second time with the sponge and fresh water **(41)**. Next, he wipes down the wall with highly absorbent paper towel to remove the grout haze **(42)**. A final wipe down with a paper towel finishes the job **(43)**.