

Shackerley

BUILD WITH GLASS BLOCKS MORTAR SYSTEM

Building with glass blocks is a quick and simple way of dividing a room to make better use of space and light.

The construction is easy using special adhesive and spacers, the blocks can be used in various projects such as shower screens, garden features or breakfast bars or, in a large room, it could divide the the space to make, for example, an extra bedroom or en-suite bathroom.

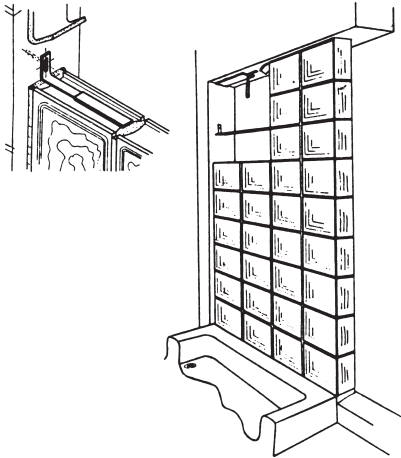
This leaflet explains how to plan and construct a glass block wall. It should be read through before starting work.

TOOLS

- Small Trowel
- Level
- Sponge
- Silicone Sealant
- Pencil
- Measuring tape
- Electric hammer drill with twist and masonry bits
- Screwdriver (correct size)
- Hard point hand saw
- Mixing buckets
- Clean dry cloth
- Hacksaw
- Small step ladder
- Extension cable
- Plum line
- Wall plugs

BASIC ITEMS

- Glass blocks
- Spacers (10mm)
- Panel anchors
- Adhesive
- Reinforcing rods
- Compression strips
- Corner blocks
- Glass tiles



Items required for a shower screen 800 x 2400 constructed in 190 x 190 x 80 clear.

- 50 x Blocks
- 3 x 25kg adhesive
- 75 x Spacers
- 14 x Panel Anchor
- 1 x Reinforcement Rod pk
- 1 x Packing Strip
- 3 x Glass Tile Packs

Additional Construction notes:

- Fix glass tile edge pieces with showerproof wall tile adhesive.
- Finish internal joints between glass blocks and wall tiles with a showerproof silicone sealant.
- Place horizontal reinforcing rods in alternate joints.
- Install panel anchors to perimeter of panel as shown in illustration.
- Ensure mortar has cured before use.

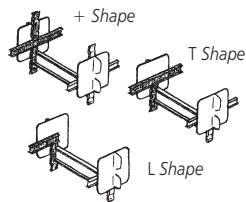
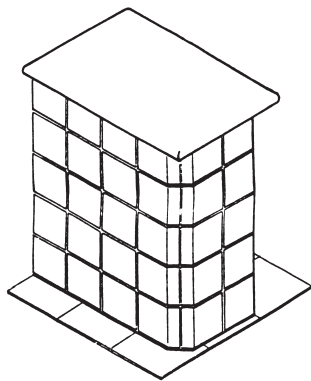
A shower door can be secured in place with plugs and screws into the mortar joint between blocks.

Items required to construct a breakfast bar in 190 x 190 x 80 clear blocks inc corners.

- 30 x Blocks
- 20 x Corner Blocks
- 75 x Spacers
- 3 x 25kg Adhesive
- 4 x Panel Anchors

Additional Construction notes:

- Ensure mortar is fully cured before fixing your counter top.
- Ensure you clean the inside face fully before fixing your counter top.
- Use your measurement to ensure that the two legs are kept a constant distance apart.



Shackerley Glass Blocks can also be installed in both the Quicktech and Framelight Dry Fix Systems. See our website for details.

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CONSTRUCTING DOMESTIC PROJECTS WITH GLASS BLOCKS

PREPARATION

1. Determine size of your glass block panel.

For horizontal and vertical size, multiply the modular size of block (200 mm) by the number of blocks in a run and add 10 mm. This gives you the rough opening size, based on 10 mm mortar joints.

2. Install panel anchors.

The glass block panel is tied into the frame by use of panel anchors (these become embedded in mortar). Anchors are attached to jambs and head but not the sill. Anchors are placed at 400 mm centres. The anchors must have a solid fixing to the substructure.

3. Install expansion strips.

Expansion strips should be stapled or tacked along jamb and head between anchors.

4. Determine how many spacers you need.

Generally, the rule of thumb is 1.5 spacers per block. To ensure an adequate supply, allow for 10% more spacers than required.

5. Preparing glass block spacers.

The spacer is actually 3 spacers in one. By simply trimming off certain elements, 'L' and 'T' spacers are created.

6. Orient Spacer correctly.

Normally, the spacer crossbar should face downward. The crossbar should only face upwards at the sill, as a 'T' spacer.

7. Prepare the mortar.

One 25kg bag of premixed glass block mortar is sufficient for installation of approx 20 blocks (190 x 190 x 80 mm). Follow the instructions on the bag.

INSTALLATION

**GOLDEN RULE:
NEVER DRILL OR CUT THE GLASS BLOCKS**

LAYING THE FIRST COURSE

1. Apply glass block mortar to a clean, level sill. Use enough mortar so that a 10 mm joint will remain when blocks are in place.
2. Using an 'L' and 'T' spacer on the sill and jamb surfaces, insert first block at lower corner.
3. Push the block snugly into place ensuring it is properly seated. Place a regular spacer on upper corner of first block. Apply layer of mortar to the vertical edge of the new block and put into place. Once again, check block is properly seated.
4. Continue laying first course by repeating steps 1, 2 and 3. Periodically use level and plumb line to assure accuracy of panel. Adjust as necessary before continuing.

INSTALLING THE REMAINING COURSES

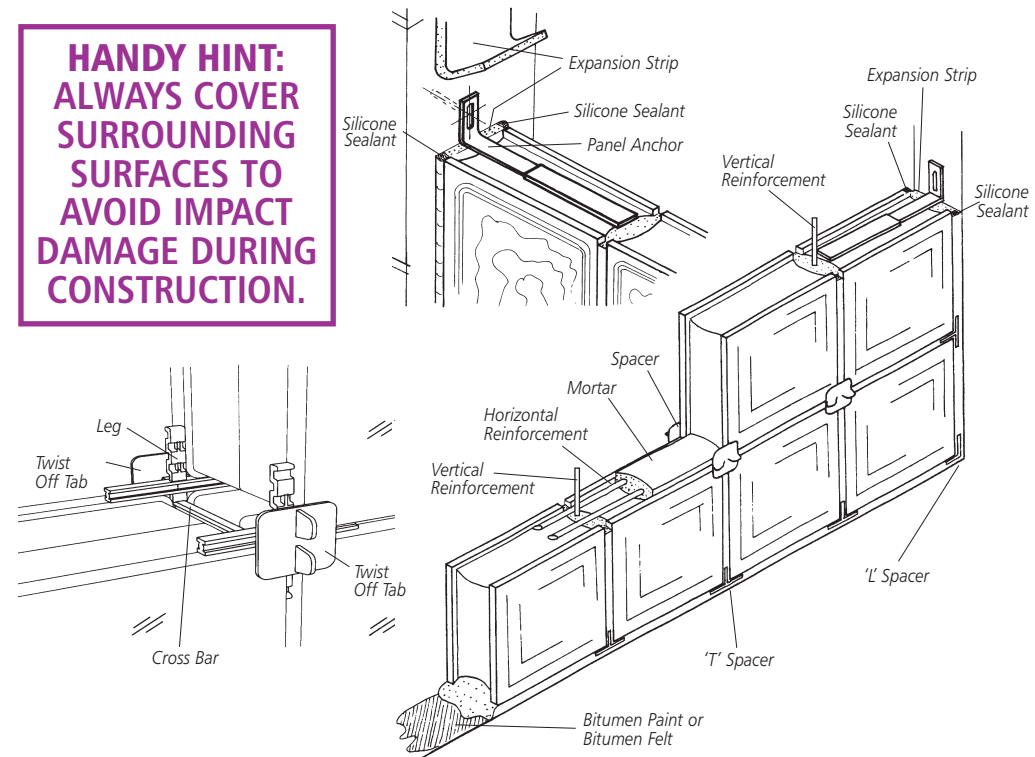
5. When first course is complete, apply layer of mortar to top of blocks spread and smooth making sure that crosslegs of spacers are free of mortar. This ensures accurate spacing.
6. Continue laying blocks, repeating steps 1-5.
7. When you encounter panel anchors, ensure that top of block (with spacer in place) slips under the anchor. Continue finishing that course, then apply mortar to top, embedding anchor.

8. For panels with spans of greater than 1.4 m panel reinforcing must be installed on top of alternate horizontal and alternate vertical courses, for 190 x 190 x 80 mm blocks. Once mortar has been placed on top course, simply press strip of reinforcing into mortar. If you use more than one strip, overlap them by 150 mm.
9. When laying top course, put appropriate spacers in place before inserting block.

FINISHING AND CLEAN UP

1. Using sponge or damp cloth, remove excess mortar from faces. Be sure to rinse often as work progresses using water only (no abrasive products). Do not let mortar dry completely before removal from block. Block will be left with a light film which will be removed later.
2. Twist end tabs off all spacers. After mortar has set for one hour, use striking tool to smooth joints. This produces even, professional results and compacts the mortar to create a moisture-resistant seal. After striking, all joints should be left completely full of mortar. For shower installations you may rake joints to a depth of 10 mm then after a 24 hour cure, fill the joints with panel grout. After two hours, wipe blocks with soft cloth. Use caulk to seal panel at jambs and head.
3. One or two hours after striking joints, wipe the block faces with soft, clean cloth.
4. Using the caulk gun, apply silicone sealant continuously along the seams where the block panel joins the jambs and the head. Be sure to apply sealant on both sides of the panel.

**HANDY HINT:
ALWAYS COVER
SURROUNDING
SURFACES TO
AVOID IMPACT
DAMAGE DURING
CONSTRUCTION.**



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