

## GOLDEN RULES FOR EASIFIX INSTALLATION

### Golden rules - essential guidelines that need to be considered prior to preparation of the opening and before beginning installation of glass blocks.

- ✓ Glass block walls are self supporting, but not load bearing. Therefore similar to doors and windows, support above should be provided in the form of a lintel.
- ✓ For best integral strength, glass blocks should be installed into a four sided pre-prepared opening. This opening can be timber, brick, steel, concrete or blockwork.
- ✓ Glass blocks expand and contract with temperature change. Then Easifix system allows for its own expansion and contraction because the extrusion is manufactured from exterior grade PVC and blocks are bonded together using silicone with high elasticity properties.
- ✓ Glass blocks should not be installed when the surrounding temperature is 5°C and falling or 30°C and rising.
- ✓ Openings must be square and perpendicular and made to suit glass block modules. It is important to remember that glass blocks should not be cut like masonry bricks or tiles.
- ✓ A glass block panel should never be freestanding. To secure panel into opening using Easifix, stainless steel anchor brackets and horizontal Easifix spacer, placed on every row acts as reinforcement.
- ✓ Maximum panel size recommended when constructing with Easifix for internal use only up to 9m<sup>2</sup>. (Vertical dimension not to exceed 3m).
- ✓ Easifix cannot be used in fire rated situations.
- ✓ Easifix can only be used for straight walls in conjunction with 80mm glass blocks.



## EASIFIX ACCESSORIES

### EASIFIX EXTRUSION

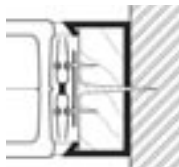
The Easifix extrusion is designed to replicate the profile of a mortar joint where the hollow of two glass blocks meet. Easifix spacers are manufactured in 2 lengths : 2.4m - horizontal and 1.85m (nominal) - vertical.



Easifix extrusion (highlighted) is placed between blocks and held with two, 5mm beads of silicone.

### EASIFIX SLEEVE

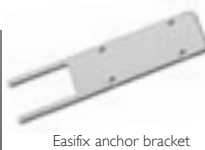
Easifix sleeve is a UPVC U channel which accommodates a timber insert and is used around the perimeter edge of an Easifix glass block panel.



If Easifix is fitted into a timber stud wall and a clean line between the blocks and the plasterboard is required, it is permissible to screw the anchor brackets directly to the timber.

### EASIFIX ANCHOR BRACKETS

Two number Easifix anchor brackets are used, one at each end of each course and locate into the Easifix extrusion, holding each horizontal spacer in place.



eg. Easifix direct to End post (no sleeve) 4 pilot holes per anchor bracket need to be pre-drilled. 4 holes per anchor bracket x 11 blocks high x 2 sides = 88 pre-drilled holes. Hence Easifix sleeve!

## CALCULATING OPENING SIZES

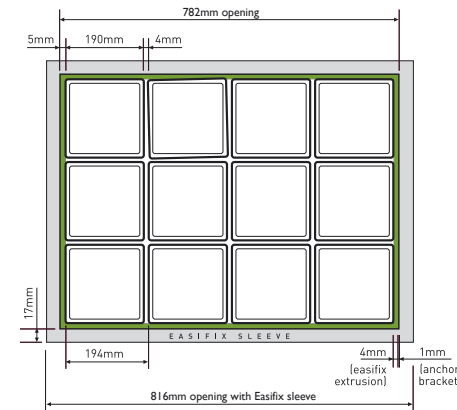
Calculating the opening size accurately is essential because glass blocks should not be cut like masonry bricks or tiles.

The diagram demonstrates the principle of how to calculate an opening size based on using 190x190x80mm glass blocks and 4mm joints. The Easifix extrusion is designed to create glass block panels with a minimum joint width.

The perimeter joint will be approximately 5mm and the diagram and photographic step by step guide shows the use of easifix sleeve, which is 22mm deep.

### Calculating opening sizes (Horizontal dimension)

- Take the width of the block (eg. 190mm)
- Add the width of the vertical spacer joint (4mm)
- Multiply by the number of blocks in the horizontal course (eg 4 No.)
- Add one more joint width (6mm) as for 4 blocks you will have 5 joints
- The final joint dimension is 6mm. This allows for 5mm at vertical end (4mm spacer and 1mm anchor bracket). The remaining 1mm (anchor bracket) to be added to the opposite vertical Easifix joint of 4mm.



### Calculating opening sizes (Vertical dimension)

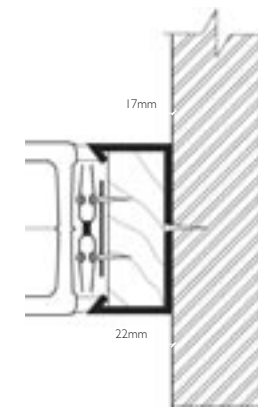
- Take the width of the block (eg. 190mm)
- Add the width of the horizontal spacer joint (4mm)
- Multiply by the number of blocks in the vertical course (eg 3 No.)
- Add one more joint width (6mm) as for 3 blocks you will have 4 joints
- The final joint dimension is 6mm. In the case of the vertical height, no anchor brackets are used. The 6mm allows a slight tolerance to allow easier positioning of the top horizontal row of glass blocks.

### EXAMPLE 1: Using 4mm joints

<b>190mm glass block :</b>	<b>190</b>
<b>4mm joint :</b>	<b>+ 4</b>
	<b>194</b>
<b>Number of blocks :</b>	<b>x 4</b>
	<b>776</b>
<b>Add fifth joint of 6mm:</b>	<b>6</b>
<b>Opening size :</b>	<b>782mm</b>

**Using Easifix sleeve**  
As above but add a further 17mm to each end (the thickness of the sleeve) + (2 x 17mm)

<b>Opening size with Easifix sleeve:</b>	<b>816mm</b>
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Easifix to sleeve connection

### EXAMPLE 2: Using 4mm joints

<b>190mm glass block :</b>	<b>190</b>
<b>4mm joint :</b>	<b>+ 4</b>
	<b>194</b>
<b>Number of blocks :</b>	<b>x 3</b>
	<b>582</b>
<b>Add fourth joint of 6mm:</b>	<b>6</b>
<b>Opening size :</b>	<b>588mm</b>

If using easifix sleeve add 17mm to each end resulting in an additional overall dimension of 34mm to be added to the required perimeter opening size.

## PREPARATION OF OPENING



### STEP 1

Position 71 x 15mm planed timber into Easifix sleeve U channel, when mitre cutting ensure U profile sleeve is rigid as to avoid flexing. When fixing the sleeve to perimeter opening or end post fit at 600mm centres.

If installing directly to stud walling or end post etc, sleeve and timber may not necessarily be required. Go directly to Step 3.



### STEP 2

Lay out blocks and Easifix spacers dry to ensure modules fit. Secure Easifix sleeve and timber horizontally and vertically to perimeter opening at 600mm centres ensuring it is both square and perpendicular.

## ANCHORING THE HORIZONTAL SPACER



### STEP 3

Cut a 2.4m long length of easifix spacer fractionally shorter than the horizontal length of opening. Take two anchor brackets and bend prongs to a right angle using pliers. Insert prongs into holes of easifix spacer at each end.



### STEP 4

Silicon two 5mm beads of mastic into the under-side of the easifix spacer; fit to base of opening. Screw fix anchor brackets in place.

**Tip:** As well as siliconing the base spacer, it can be screwed to the base to secure it instantly; Ensure screws are countersunk, so screw head avoids contact with blocks.

## LAYING THE FIRST COURSE



### STEP 5

Take a 185mm length of spacer profile and silicon two beads of mastic on one side. Place over the anchor bracket.

Silicon two beads of mastic to the easifix spacer profile. Fit first block. Take another piece of 185mm easifix, apply silicon and fit to exposed vertical of first block. Fit next block and repeat this process until first row is complete.

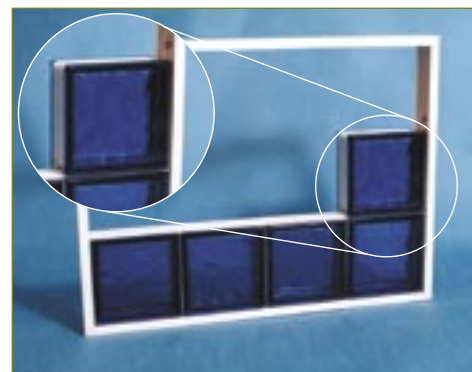


### STEP 6

Note : Easifix spacer must always separate blocks from Easifix sleeve or perimeter opening. (fig.1)

Remember each row has to be secured with anchor brackets at each end of the horizontal spacer.

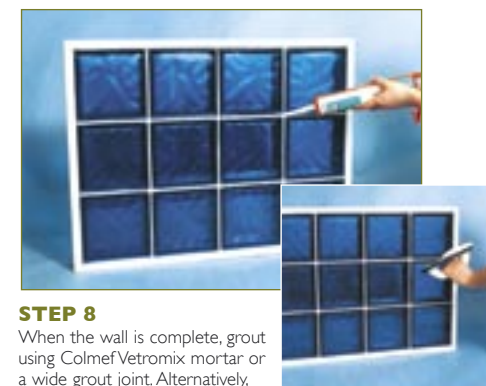
## BUILDING THE PANEL



### STEP 7

Repeat previous steps to complete the next and following rows.

## FINISHING, SEALING AND WEATHER-PROOFING THE GLASS BLOCK PANEL



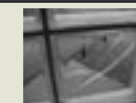
### STEP 8

When the wall is complete, grout using Colmef Vetromix mortar or a wide grout joint. Alternatively, caulk the joints with silicone. Ensure that the perimeter joint is raked back, cleaned and siliconed. If grouted over it may crack.

It is advised to construct the first course and allow this to initially cure so that on returning to build consecutive courses it becomes easier building a firm bed. In ideal circumstances around 6-8 courses before the panel will wobble to much, dependent on the panel width. Back shuttering could be considered for additional support. At this point it is advised to stop building and allow the panel to set prior to completing construction.

For loose build of glass blocks ensure enough time is set aside to fully build.

Restriction can result in block cracking.



## INITIAL CLEAN AND AFTER CARE MAINTENANCE

Do not clean with any acidic products, the best product for cleaning is water. Polish each block with a soft cloth using good old elbow grease. **Note:** Clean face of block as work proceeds. The glass block installer should have left the glass block wall in a clean, unblemished condition. Requiring only periodical cleaning to maintain an excellent appearance. However, there may be a residue of cement on the glass surface left from mortar/tiling grout identified by whiteish bloom when dry. This may be removed by use of proprietary cement stain remover. (BAL HD Tar Cleaner)