



THE COMPLETE GUIDE TO BUILDING GLASS BLOCKS

USING



rods & mortar
INSTALLATION SYSTEM



EASIFIX
INSTALLATION SYSTEM



precast
EASIFIX

GLASSBLOCK
SOLUTIONS

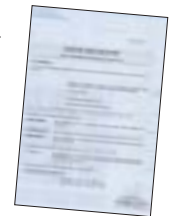
Illustrated is the range of glass blocks produced by La Rochere. Below each image is the product name, and the size that the block is available. All measurements are in mm.

La Rochere clear glass blocks are manufactured with a very clear tint.


FIRE RATING : La Rochere clear glass blocks, when installed in accordance with the Rods and Mortar method and the perimeter expansion joint is caulked over in a fire retardent silicon, We can arrange for a Fire Certificate for 60 minute fire integrity and 15 minute thermal

isolation on application.

							
CLEAR FLEMISH 190x190x80 / 190x190x100/ 240x240x80	BLUE FLEMISH 190x190x80	COBALT BLUE FLEMISH 190x190x80	GREEN FLEMISH 190x190x80	REEDED 190x190x80	CROSS REEDED 190x190x80 / 190x190x100 / 240x240x80	FINE REEDED 190x190x80	TRANSPARENT ALPHA 190x190x80 / 240x240x80
							
TURQUOISE FLEMISH 190x190x80	ROSE FLEMISH 190x190x80	BRONZE FLEMISH 190x190x80	GREY FLEMISH 190x190x80	TRANSPARENT 190x190x80 / 190x190x100 / 240x240x80	CLEAR BUBBLE 190x190x80 / 240x240x80	BRONZE BUBBLE 190x190x80	BLUE BUBBLE 190x190x80
							
CLEAR FROSTED 190x190x80 / 240x240x80	BLUE FROSTED 190x190x80	COBALT BLUE FROSTED 190x190x80	GREEN FROSTED 190x190x80	CLEAR JAVA 190x190x80	BLUE JAVA 190x190x80	ROSE JAVA 190x190x80	TURQUOISE JAVA 190x190x80
							FIRE RATING La Rochere clear blocks have a minimum 1 hour fire integrity and a minimum 15 minute thermal isolation. We can issue a Fire Certificate for 60 minute fire integrity and 15 minute thermal isolation on application.
TURQUOISE FROSTED 190x190x80	ROSE FROSTED 190x190x80	QUADRA BLOCK 190x190x80	MORSE BLOCK 190x190x80	ROUND TRANSPARENT 240x80 Porthole blocks can be precast into concrete by special order.	ROUND CLEAR FLEMISH 240x80	VENTILATION BLOCKS Available in sizes : 190x190x80 Only to be used in conjunction with Rods & Mortar installation systems.	



TRANSPARENCY RATING

Here is a simple guide to assist in selecting glass blocks when the level of transparency required is an issue. Note : No ducks were harmed during the production of this photography. 

			
TRANSPARENT	CLEAR FLEMISH	CLEAR BUBBLE	CLEAR JAVA

SANDBLASTING



Typical example : Turquoise Flemish & Transparent.

All blocks can be sand blasted one side or two.

Sandblasting can also be referred to as shotblasting, satinating or Sahara finish.

Sandblasting is a safer means of satinating Glass Blocks compared with acid etching.

Sandblasted blocks can be treated with a protective coating to offer resistance against smudges and water marks.

EXAMPLE :
Clear Flemish not sandblasted



Clear Flemish sandblasted one side



Shown here is the range of glass blocks produced by Weck. Below each image you will find the product name, and the sizes that the block is available in.

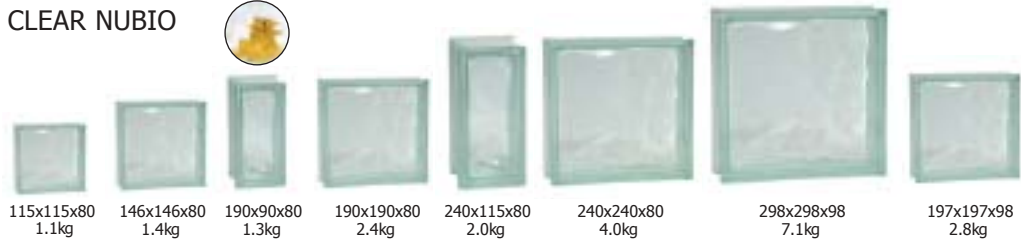
Weck clear glass blocks are manufactured with a slight green tint.

All measurements are in mm.

All blocks can be sandblasted one side or two. This reduces ultra violet rays by 80%.

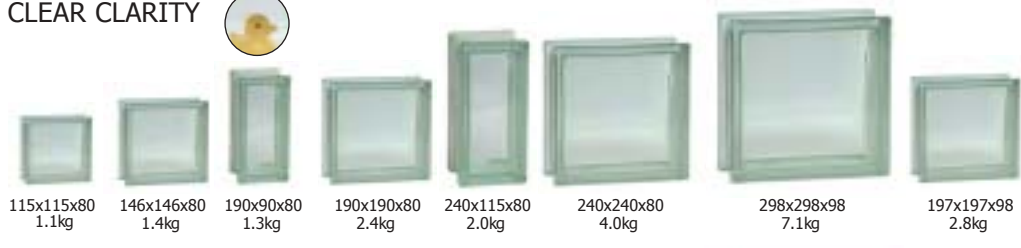
FIRE RATING : Weck 190x190x80 glass blocks have been tested and achieve a 45 minute fire integrity.

CLEAR NUBIO



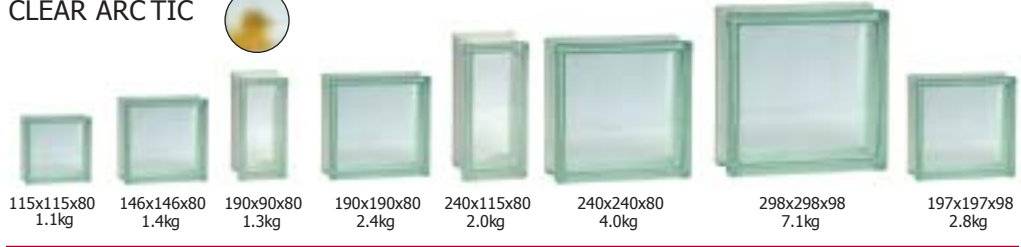
115x115x80 1.1kg
146x146x80 1.4kg
190x90x80 1.3kg
190x190x80 2.4kg
240x115x80 2.0kg
240x240x80 4.0kg
298x298x98 7.1kg
197x197x98 2.8kg

CLEAR CLARITY

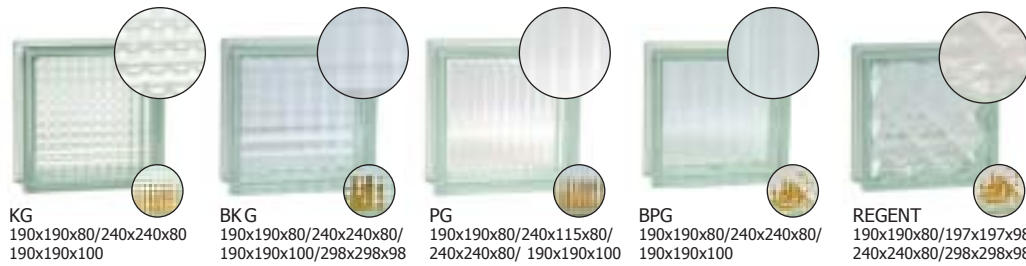


115x115x80 1.1kg
146x146x80 1.4kg
190x90x80 1.3kg
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298x298x98 7.1kg
197x197x98 2.8kg

CLEAR ARCTIC



115x115x80 1.1kg
146x146x80 1.4kg
190x90x80 1.3kg
190x190x80 2.4kg
240x115x80 2.0kg
240x240x80 4.0kg
298x298x98 7.1kg
197x197x98 2.8kg



KG 190x190x80/240x240x80/190x190x100
BKG 190x190x80/240x240x80/190x190x100/298x298x98
PG 190x190x80/240x115x80/240x240x80/190x190x100
BPG 190x190x80/240x240x80/190x190x100
REGENT 190x190x80/197x197x98/240x240x80/298x298x98



METALLIK 190x190x80/240x240x80
CORTINA 190x190x80/197x197x98
PERLMUTT 190x190x80
CLEAR INKA 190x190x80
BRONZE INKA 190x190x80



BLUE NUBIO 190x190x80
BRONZE NUBIO 190x190x80/240x115x80/240x240x80
TURQUOISE NUBIO 190x190x80
GREEN NUBIO 190x190x80
PINK NUBIO 190x190x80



GREY NUBIO 190x190x80
VIOLET NUBIO 190x190x80
BLUE ARCTIC 190x190x80
TURQUOISE ARCTIC 190x190x80
GREEN ARCTIC 190x190x80



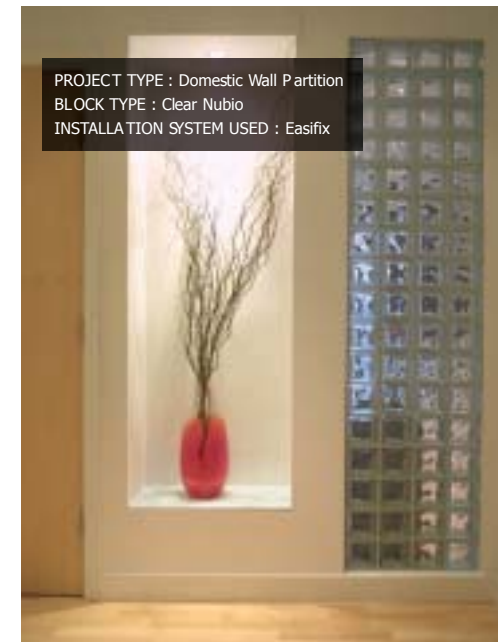
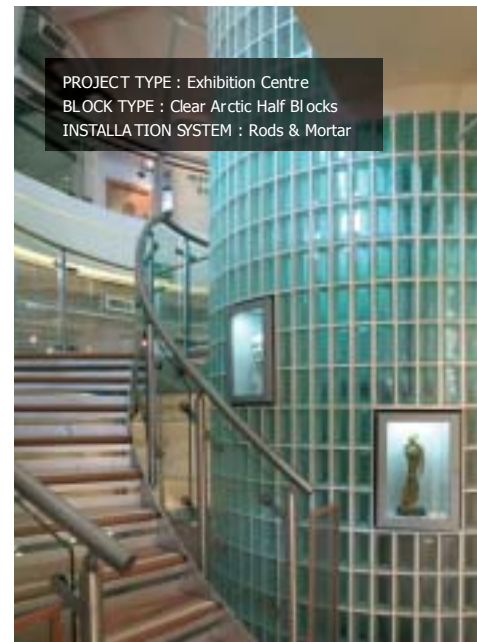
PINK ARCTIC 190x190x80
GREY ARCTIC 190x190x80
VIOLET ARCTIC 190x190x80
BRONZE ARCTIC 190x190x80
BLUE CLARITY 190x190x80



CLEAR PEARL 190x190x80/197x197x98
CLEAR METEOR 190x190x80/240x240x80
BRONZE METEOR 190x190x80
CLEAR NOBLE 190x190x80/240x240x80
BRONZE NOBLE 190x190x80/240x240x80



CLEAR WELLE 190x190x80
BLUE WELLE 190x190x80
BRONZE WELLE 190x190x80
CLEAR ARKTIS 190x190x80
BLEND ARM SPRAY 190x190x80/197x197x98/240x240x80



REASONS TO USE RODS & MORTAR

Internal and External Panels
Straight or curved walls

GOLDEN RULES OF GLASS BLOCK INSTALLATION USING RODS & MORTAR

Glass block walls are self supporting, but not load bearing.

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.

Glass blocks should not be installed when the surrounding temperature is 5°C and falling or 30°C and rising.

Expansion material must be incorporated to the perimeter opening.

Openings must be square and perpendicular and made to suit glass block modules. Glass blocks cannot be cut like masonry bricks or tiles.

Maximum panel size without intermediate slip joint is 25m² with no single dimension exceeding 6m in any direction.

CALCULATING OPENING SIZE

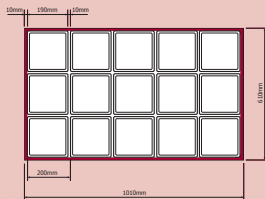
190mm glass block :	190
10mm joint :	+ 10
	200
Number of blocks :	x 5
	1000
Add sixth joint of 10mm:	10
Minimum opening size :	1010mm*

EXAMPLE :

Using 10mm joints

*The expansion material is incorporated into this measurement.

Denotes expansion material



TOOLS REQUIRED

Trowel, spirit level, rubber mallet, wooden spatula, hack saw, pointing tool, silicon and caulking gun, drill & mixing bucket.

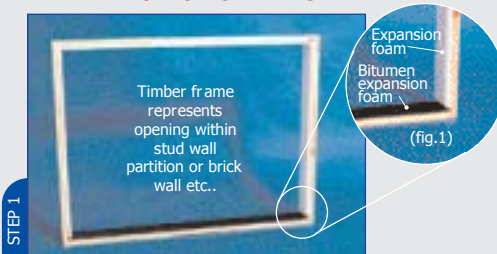


ACCESSORIES REQUIRED

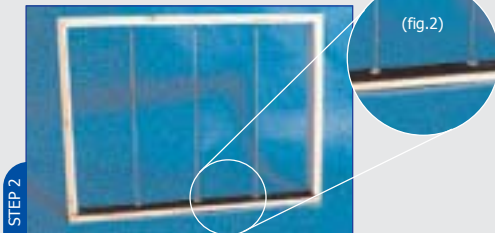
(a) Blocks, (b) bitumen and (c) foam expansion joints, (d) colmef mortar, (e) stainless steel rods, (f) plastic spacer pegs (g) silicon



PREPARATION OF OPENING



Calculate the correct opening size. Make sure the opening is square and perpendicular. Lay bitumen expansion material along base of opening. Secure expansion foam to jambs and head. All four sides of the opening should now be covered in expansion material (See fig.1). Bitumen is necessary on the base to take the weight of the glass block wall.



Set out dry your first row of glass blocks to ensure opening size is correct. Mark accurately and drill oversized holes in between the blocks, vertically and horizontally where rods will be positioned. Fill holes with silicon and fit vertical bars in place (fig.2).

LAYING FIRST COURSE



Mix Colmef Vetromix glass block mortar following instructions on reverse of bag (fig.3). The mix should be a semi dry consistency (Slump 1 or less). Lay down bed of mortar.

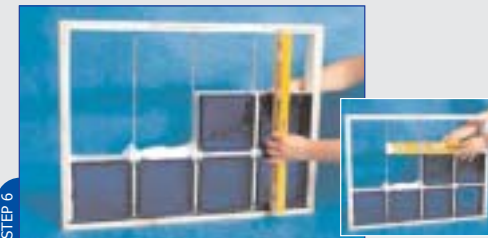


Fit first block and tamp down gently, fit second block and repeat. Ensure there is enough mortar between the blocks and the base to create sufficient adhesion, compact the vertical mortar joint using a wooden instrument. (fig.4) Note: Spacer pegs are not required between base and first row of blocks.

BUILDING THE PANEL



Repeat Step 4 until you have completed the first row. Insert spacer pegs in between blocks, this prevents steel rods from touching glass (fig.5). Lay half the quantity of mortar and fix the horizontal rod in position, not forgetting to put silicon in the holes, then cover over the rod with remainder of mortar (fig.6). Rods have to be positioned every row vertically and horizontally. If using a U channel stainless steel reinforcement rods are required around the perimeter.



Fit next row, checking vertical and horizontal alignment.

FINISHING THE GLASS BLOCK PANEL



When the wall has set, snap off spacer tabs and grout all joints with diluted Colmef mortar.

SEALING AND WEATHERPROOFING THE GLASS BLOCK PANEL



Mastic around perimeter of expansion foam to create a weather proof seal.

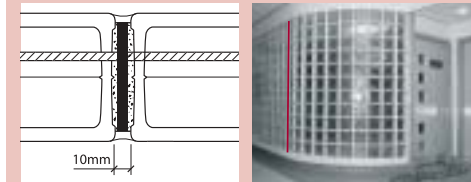
For assistance with initial clean and after care maintenance, see Easifix section

CURVED WALLS

Curved glass block walls can only be constructed using Rods & Mortar installation system. The principle of a curved panel follows the same guidelines as straight glass block walls, except the front vertical joint is opened to form a curve.

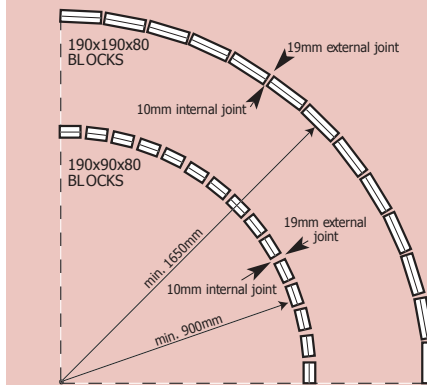
EXPANSION JOINTS

Perimeter expansion should be allowed for around all four sides of the panel, ensure this joint is weatherproofed by caulking with silicon and not grouted over with mortar. Where a curve changes plane, a vertical slip joint must be inserted.



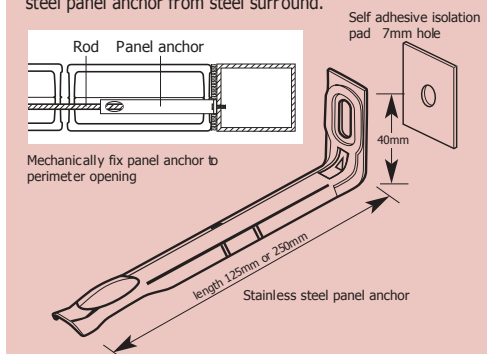
JOINT SIZES AND MINIMUM RADII

When constructing curved glass block panels, we recommend the use of a 10mm internal vertical joint. Using 190x190x80mm glass blocks, the minimum internal radius of 1650mm will result in the external vertical joint being 18-19mm.



PANEL ANCHORS

As an alternative to drilling oversized holes, panel anchors can be used especially when constructing into steel sided frames. Isolation pads are required to separate the stainless steel panel anchor from steel surround.



REASONS TO USE EASIFIX

Easy and speedy installation of straight (non fire rated) internal glass block walls.

GOLDEN RULES OF GLASS BLOCK INSTALLATION USING EASIFIX SYSTEM

Glass block walls are self supporting, but not load bearing.

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.

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. Glass blocks cannot 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, every row acts as reinforcement.

Maximum panel size recommended when constructing with Easifix for internal use only up to 10m². (Vertical dimension not to exceed 3m).

PREPARATION OF OPENING

Cut 71 x 15mm planed timber and place into Easifix sleeve to create a neat finish. Mitre cut the corners of easifix sleeve.



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

ANCHORING THE HORIZONTAL SPACER

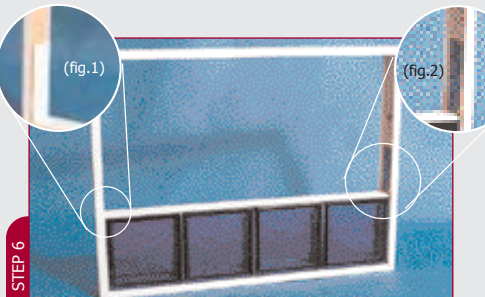
Cut long length of easifix spacer fractionally shorter than the horizontal length of opening. Take two anchor brackets and bend prongs to a right angle using pliers. Insert prongs into holes of easifix spacer at each end.



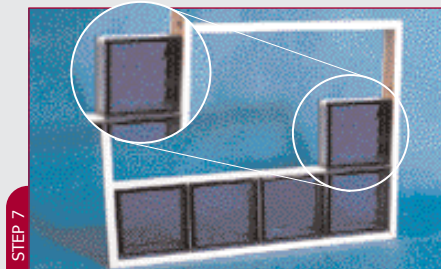
Silicon two 5mm beads of mastic into the under-side of the easifix spacer, fit to base of opening. Screw fix anchor brackets in place.

LAYING FIRST COURSE

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



Note : Easifix spacer must always separate blocks from frame. (fig.1) Remember each row has to be secured with anchor brackets. (fig.2)

FINISHING THE GLASS BLOCK PANEL

Repeat previous steps to complete the next and following rows.

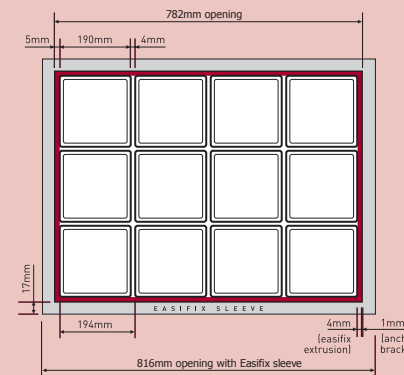
SEALING AND WEATHERPROOFING THE GLASS BLOCK PANEL

When the wall is complete, caulk the joints with silicon. Alternatively, grout using a wide grout joint.

CALCULATING OPENING SIZES

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/vertical 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 one end (4mm spacer and 1mm anchor bracket) and 1mm to be added to the 4mm Easifix joint at the opposite end.

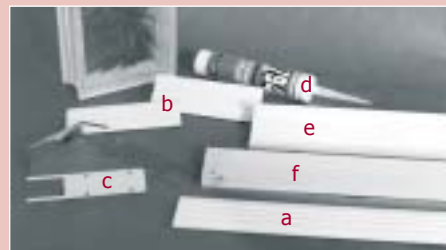
EXAMPLE 1: Using 10mm joints	EXAMPLE 2: Using Easifix sleeve
190mm glass block : 190	As Example 1 but add a further
4mm joint : + 4	17mm to each end (the
	thickness of the sleeve) 782mm
Number of blocks : x 4	+ (2 x 17mm)
	776
Add fifth joint of 6mm: 6	Opening size with Easifix sleeve: 816mm.
Opening size : 782mm	

**TOOLS REQUIRED**

Drill or screwdriver, mitresaw or hacksaw, caulking gun, screws, pliers and spirit level.

**ACCESSORIES REQUIRED**

- (a) 2.4m (nominal) Easifix spacer profile;
- (b) 185mm Easifix spacer profile;
- (c) Stainless steel anchor brackets;
- (d) DC794 silicon; (e) Easifix sleeve; (f) Planed timber

**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)

HYDROFLUORIC ACID OR DERIVATIVES MUST NOT BE USED.

Paint or cement may be removed by a blade taking care not to scratch the surface of the glass. Periodic cleaning is required using clean water and buffing up with a chamois leather or in clean water use a proprietary glass cleaner and clean off with a lint free cloth.

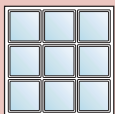
PRECAST EASIFIX CONCEPT

Precast Easifix is a dry fix system and one of the simplest ways of installing glass blocks. A revolutionary two part U channel allows you to fit precast glass block panels quickly and easily.

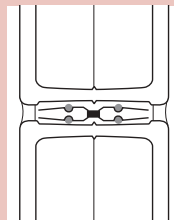
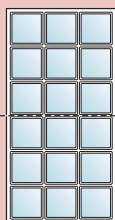
Precast Easifix is an ideal product for bar fronts, counters, dividing walls, virtually any straight non fire rated glass block panel.

Two types of panel are available : standard or interconnecting.

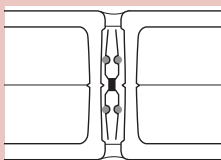
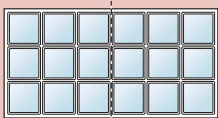
PANEL TYPES AND DETAILS



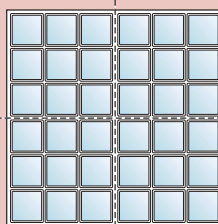
Standard Panel



Horizontal Connecting



Vertical Connecting



Multiple Connecting

GOLDEN RULES : Precast Easifix glass block panels are not load bearing. For best integral strength, always install into a four sided opening.



Step 1 : Position and screw in place first part of aluminium channel. Ensure that the screws are located to the relevant marker.



Step 2 : Vertically lift the first panel having placed plastic packers on base of aluminium (a) and slide into position. Temporarily secure in place using restraint anchors (b) supplied.



Step 3 : Apply silicone to the connecting joint on the second panel (c). Carefully lift second panel in vertical motion onto plastic packers and slide up to first panel ensuring a neat joint at intersecting point. Note : Apply more silicone if required.



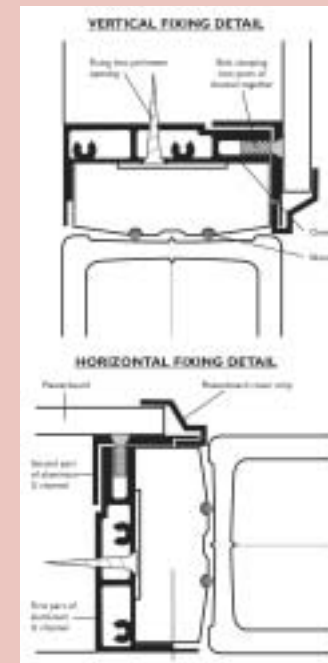
Step 4 : Position second piece of channel and screw bolts into pre-drilled holes. Note : Fit sides first, then top, then bottom. If the Precast Easifix is a vertically or horizontally connecting panel, grout the connecting joint, both sides with the grout supplied.



Step 5 : If using plasterboard coverstrip carefully measure, mitre corners and slot into position.

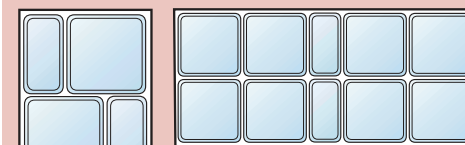


Step 6 : Position plasterboard behind cover strip.



PRECAST EASIFIX DESIGNS

Precast Easifix panels are custom manufactured to specification and a whole variety of combinations are possible. Precast Easifix can only be used in conjunction with 80mm thick blocks but by using different sizes of glass blocks all combinations of designs can be created, for example :



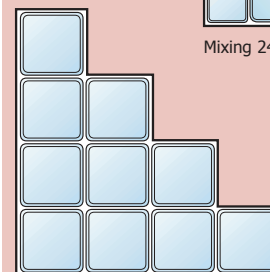
Mixing 190x190 with 190x90



Mixing 240x115 with 240x240



Mixing 240x115 with 115x115



A triangle of 190x190 blocks



A panel of 190x90

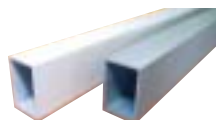
END POST

The end post offers a solution for constructing glass block walls safely by creating a secondary vertical jamb. It is compatible with both Rods and Mortar and Easifix installation systems. The end post is secured in place by two specially fabricated boss sections available in either brushed or polished stainless steel.



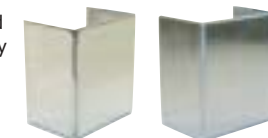
SPECIFICATION

End posts are 2700mm long and can be cut to size on site to suit the floor to ceiling height. The end post is a 3 x 2 extruded aluminium box section, powder coated in either gloss white or metallic grey.



White & Metallic End Posts

The end post is secured in place by two specially fabricated boss sections, shown here, available in either brushed or polished stainless steel.



Polished End Boss Satin End Boss (Brushed)

Note: Corner and End posts are recommended for internal use only, carry no fire rating, can only be used in conjunction with 80mm glass blocks and are suitable for use with either Rods & Mortar or Easifix systems.

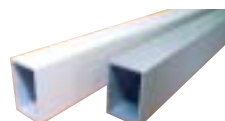
CORNER POST

The corner post offers a solution for constructing glass block walls around a 90° corner. A corner boss section is secured to the floor and another is secured into the ceiling and then the corner post is slid into place, until the panel is fully constructed the post can temporarily be held in place by silicoining inside the boss section.



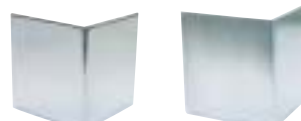
SPECIFICATION

The corner post is 3 square and 2700mm long, can be cut down on site and is secured in place similarly to the end post, by two stainless steel boss sections.

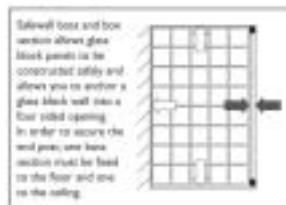


White & Metallic Corner Posts

The boss sections are available in either brushed or polished stainless steel.



Polished Corner Boss Satin Corner Boss (Brushed)



Suitable for



installation systems.

EXCLUSIVE

F-30 FIRE BLOCKS

DIN 4102-13 Approved - Certificate No: Z-19. 14-1257



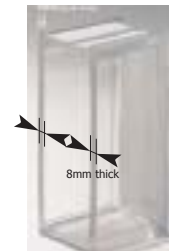
Thermal Isolation (F-category glazing) : 30 minutes
DIN Standard Certificate No : Z-19. 14-1257



Clear Nubio



Clear Arctic



STANDARD GLASS BLOCK 190 x 190 x 80mm

Blocks featured measure 190x190x100mm



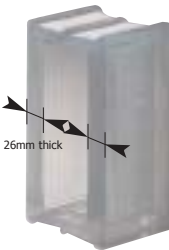
Fire Integrity (G-category glazing) : 120 minutes
DIN Standard Certificate No : Z-19. 14-1258



Clear Clarity



Super Fine Cross Retailed



F-30 GLASS FIRE BLOCK 190 x 190 x 100mm

The Weck 190x190x100 SHS glass block achieved a G120/F30 rating based on the four test criteria of a fire test at the Deutsches Institut Fur Bautechnik under DIN standards. Fire resistance is concerned with four criteria :

- (a) Mechanical Resistance - the glass block wall must stay upright without too much damage following testing.
- (b) Thermal isolation
- (c) Imperviousness against blaze and
- (d) No flammable emission during testing.

FIRE INTEGRITY - (G-CATEGORY GLAZING) :The glass block wall must pass Test (a) above.

THERMAL ISOLATION - (F-CATEGORY GLAZING) :The glass block wall must pass all four of the criteria above.

Specialist fitting instructions available on request.

END/DOUBLE END BLOCKS



CLARITY END 190x190x80/197x197x98



CLEAR NUBIO END 190x190x80/197x197x98



BLUE NUBIO END 190x190x80



CLARITY DOUBLE END 190x190x80/197x197x98



CLEAR NUBIO DOUBLE END 190x190x80/197x197x98



BLUE NUBIO DOUBLE END 190x190x80



SPECIALIST BLOCKS

CORNER BLOCKS



CLARITY CORNER 190x80/197x98



CLEAR NUBIO CORNER 190x80/197x98



RADIUS BLOCKS



CLARITY RADIUS - 22.5° 190x80



CLEAR NUBIO RADIUS - 22.5° 190x80





WHY CHOOSE GLASS BLOCKS?

Superb visual and aesthetic appeal

Thermal transmission : $2.9\text{W/m}^2\text{C}$

Light transmission : 80% clear blocks / 60% colour blocks

Exceptional product versatility, externally or internally,
for both commercial and domestic use

Excellent sound insulation : $\text{RW} = 42\text{dB}$

Information based on a typical 190x190x80 glass block.

All information is accurate to the best of our knowledge at time of going to press, however, colour images may vary slightly due to the printing process. We cannot be held liable in any way regarding the usage of glass blocks and the manner in which they are installed. We reserve the right to amend or correct changes at any time.