

# SPECIFICATION FIRE RATED VERTICAL PANELS

**FRL -/60/30**

## SCOPE OF WORK

The subcontractor shall be required to supply Glass Block Technologies International accredited labour, or similar approved persons, and Glass Block Technologies International proven materials for the successful installation of glass block panels to comply with all specifications and drawings related to this project. This will include the complete Ezylay Mortar System (for fire rated panels) or equal and glass blocks that reach the standard as set below and installed in accordance with CSIRO Opinion FCO-3301 Rev D. Complete test reports, opinions and drawings are available on request and ensured confidentiality.

## STANDARD

Fire Resistant Level of -/60/30 in accordance to AS 1530.4-2014 – Methods for fire tests on building materials, components, and structures Part 4: Fire Resistance Tests of elements of building construction.

## COMPLIANCE CERTIFICATE


Upon completion, Glass Block Technologies will issue a signed and dated compliance certificate stating the Fire Resistance Class, Standard and Test numbers, for submission to the relevant building inspectorate. All Fireproof glazing will be issued with Fire Tags to verify conformity.

**\*\*\* Please note: Glass Block Technologies will only issue compliance certificate if installing the complete fire rated system. Certificate should be supplied by installer/contractor.**

**NB: If a Compliance Certificate and fire tags are not issued – then the panel may be deemed as non-compliant.**

## MATERIALS - GLASS BLOCKS

**Glass Blocks** (fill in details & delete other block sizes when specifying)

Manufacturer:	<b>Vitrablok s.r.o</b> Bilinská 782/42 – 419 01 Duchcov – Česká republika
Model:	1919/8 Energy Saving 1.1
Dimension:	190x190x80 (height x width x thickness) wall thickness of 6.5mm, with 4mm coated sheet glass glued in the middle of the glass block.
Pattern:	Wave (Only Pattern) * 
Colour:	Neutral
Finish:	Clear / Sandblasted

\* Block Patterns and colours can be found at [www.glassblockconstruction.com](http://www.glassblockconstruction.com)

\*\* Sandblasted one side or both sides

According to European commission for construction products No. 305/2011, Vitrablok, s.r.o. declares that the construction product is in conformity with standard stated by harmonised norm EN 1051-1:2003. The construction product is safe when used for buildings of non-bearing constructions. The evaluation of conformity was performed according to EN 1051-2.

Vitrablok, s.r.o. production of glass blocks for the building industry and internal decoration has established and applies Quality Management System to be in accordance with the requirements of the standard ISO 9001:2015.

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## Physical properties - Properties of 1919/8 Energy 1.1 Clear Glass Block

<i>Essential Characteristic</i>	<i>Performance</i>	<i>Harmonised Technical specification</i>
Fire Resistance Level (AS 1530.4-2014)	FRL -/60/30	
Reaction on fire	A1	EN 13501-1
Resistance to temperature differences	30 K	EN 1051-2
Mechanical resistance (compressive strength)	> 8 MPa	EN 1051-1
Sound insulation	39 dB	EN 717-1 EN 140-3
Thermal insulation (U)	1.1 Wm <sup>-2</sup> K <sup>-1</sup>	EN 673
Light Transmission:		
Clear	60%	EN 410
Sandblasted (one side)	52%	
Sandblasted (two sides)	46%	
Solar energy characteristics (g):**		
Clear	42%	EN 410
Sandblasted (one side)*	48/43%	
Sandblasted (two sides)	38%	

\* First Value is determined for radiation incidence onto non-sandblasted surface, second onto sandblasted one

## MATERIALS - FIRE RATED SYSTEM ACCESSORIES

### Ezylay Aluminium Frames

Extruded Aluminium designed specifically for the installation of glass blocks. Frame comprised of section GBT-012 – Ezylay Standard Section.

### Ezylay Mortar System Connectors

Registered designed and patented. Made from High Density, new material plastic (not recycled).

Connectors are used to achieve uniform joints by locating the glass blocks in a uniform manner while the mortar is curing. The connectors also hold the reinforcing rods in optimum position for maximum strength.

### Ezylay Premix Mortar – Standard

Ezylay Glass Block Premix Mortar is designed specifically for use with the Ezylay Glass Block Installation system. Schlegel Laboratories have tested the premix mortar in conjunction with the Ezylay System, Test number WA 141-90169. Ezylay Premix Mortar has also undergone compressive tests through NATA approved BGC Cemtech. The results were comparable to AS2350.11.

### Promaseal® IBS™ Foam or Equal – Fire Resistant Foam

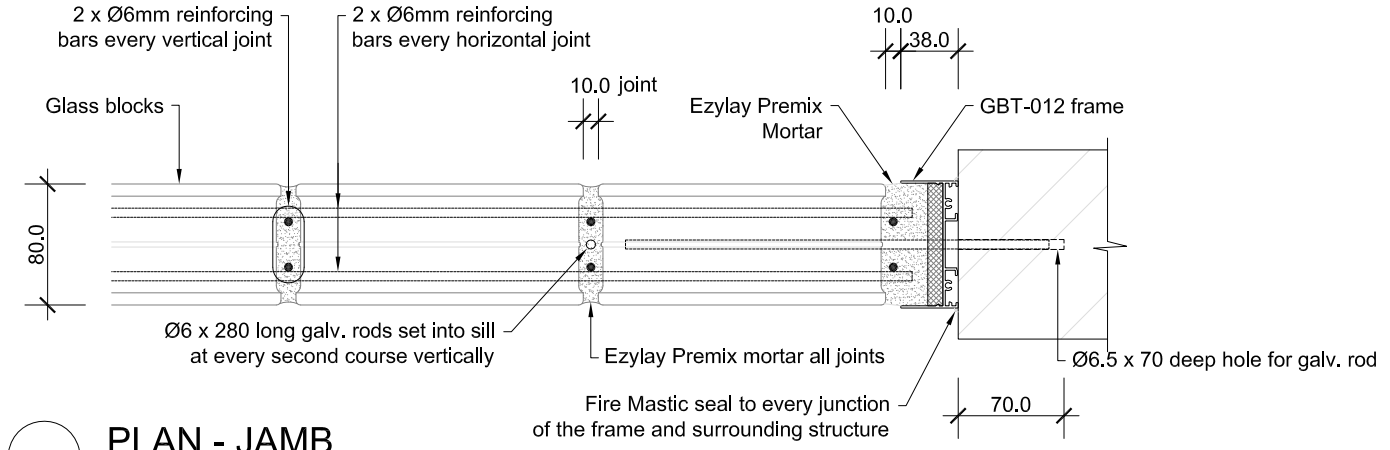
Flexible strip fire protection for joints and gaps, successfully tested to Australian Standard AS 1530 part 4:2014 for periods of up to 4 hours depending on application. Cut to 10mm x 83mm x 2000mm (thickness x width x length).

### 6mm dia galvanised or Stainless steel reinforcing rods

<u>Max. Height x Max. Width</u>	<u>Surrounding Perimeter joint</u>	<u>Horizontal Joint</u>	<u>Vertical Joint</u>
3m x 3m	2	2	1 every 2 alternating inside/outside
3m x not fire limited	2	2	2

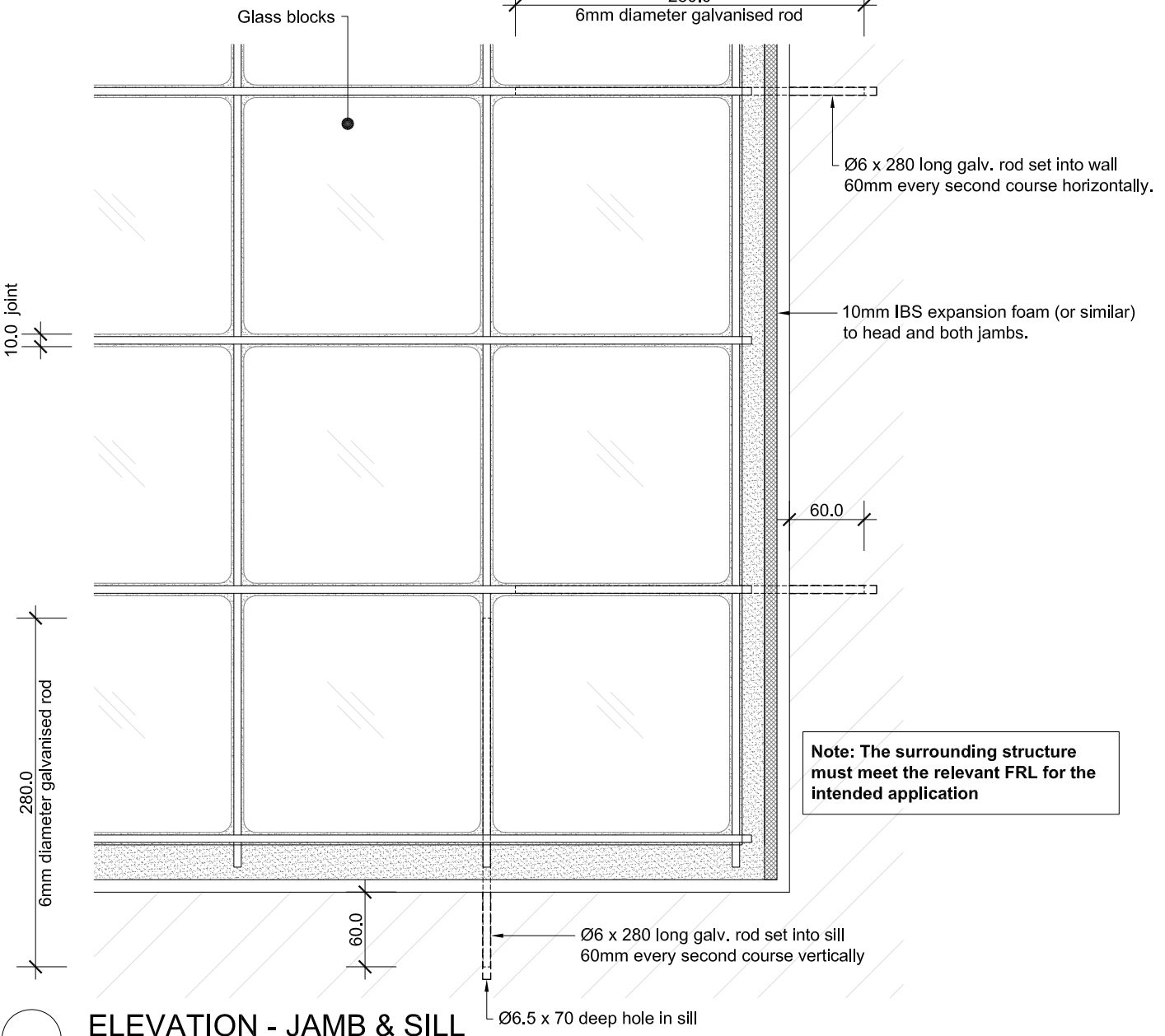
### Promaseal® Acrylic Sealant or Equal

Flexible water based gunnable sealant for fire resistant sealing of joint and service penetrations for up to 2 hours FRL when tested to AS1530 part 4 and AS 4072 part 1.



**PLAN - JAMB**

1:5



**ELEVATION - JAMB & SILL**

1:5

<b>TITLE:</b>			
FIRE RATED DETAIL FOR FRL 60/60/- ; 90/90/- & 60/60/30			
<b>SCALE:</b>	<b>DATE:</b>	<b>DRAWN:</b>	<b>DRAWING NO.:</b>
1:5	MARCH 2022	ADR	222000



**Glass Block Technologies**  
International Pty Ltd

WALLS OF NATURAL LIGHT

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