Glass Block Technologies

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 paving panels within predetermined openings, to comply with all specifications and drawings related to this project.

STANDARD

Fire Resistant Level of 60/60/60 or 120/120/90 depending on type of glass block paver used, in accordance to AS 1530.4-1997, BS 476 Parts 20 and 22 and DIN 4102 Part 13

COMPLIANCE CERTIFICATE

Upon completion, Glass Block Technologies International 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 tagged to verify conformity.

NB: If a Compliance Certificate is not issued – then the panel may be deemed as non-compliant.

MATERIALS

Glass Blocks Pavers

Manufacturer: Vitrablok s.r.o
Model: BG 1919/160 60 F (FRL 60/60/60)
BG 1919/160 90 F (FRL 120/120/90)
Pattern: Clearview
Colour: Neutral
Dimension: BG 1960 F 190x190x160 (height x width x thickness) wall thickness of 20mm
BG 1990 F 190x190x160 (height x width x thickness) wall thickness of 20mm, with 4mm coated sheet glass glued in the middle of the glass block paver.

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 as stated in use for building of bearing and non-bearing constructions. The evaluation of conformity was performed according to EN 1051-2.

Vitrablok production, in according to the European Regulations EN 1051-1, belong to Class 1, which is the highest possible quality level.

Physical properties - Properties of Clear BG 1919/8 30F

Essential Characteristic	*Performance Clear BG 1919/16 F60*	*Performance Clear BG 1919/16 F90*	*Harmonised Technical specification*
Fire Rating Level	FRL 60/60/60	FRL 120/120/90	AS 1530.4-1997
Reaction on fire	Euroclass A1	Euroclass A1	EN 13501-1
Fire Resistance class	EI 60	EI 90	EN 13501-2 EN 1365-2
Bullet Resistance	NPD	NPD	EN 1063
Explosion resistance	NPD	NPD	EN 13541
Burglar resistance	NPD	NPD	EN 356
Resistance to temperature differences	30 K	30 K	EN1051-2
Mechanical resistance (compressive strength)	> 51 kN	> 57 kN	EN 1051-1
Sound insulation	49 dB	51 dB	EN 140-3 EN 717-1
Thermal insulation (U)	1.8 $Wm^{-2}K^{-1}$	1.4 $Wm^{-2}K^{-1}$	EN 673
Light Transmission:			EN 410
Clear	50%	38%	
Sandblasted (one side)	44%	34%	
Sandblasted (two sides)	38%	29%	

Glass Block Technologies

Physical properties - Properties of Clear BG 1919/8 30F cont

Solar energy characteristics (g):			EN 410
Clear	50%	31%	
Sandblasted (one side)*	49/45%	31/28%	
Sandblasted (two sides)	44/41%	27%	
Slip Resistance			
Sandblasted (one side)	58	58	AS4586
* First Value is determined for radiation incidence onto non-sandblasted surface, second onto sandblasted one			

EZYLAY PAVING INSTALLATION MATERIALS

Ezylay Paving Moulds

Registered designed and patented by Ezylay Glass Block Systems.

Locked and screwed onto formwork to give the exact spacing for the glass blocks.

Ezylay Paving Gaskets

Registered designed and patented by Ezylay Glass Block Systems.

Uniquely designed to be placed in the top of the recess in the Ezylay Paving Mould so that when the Ezylay Paving Moulds and formwork are detached – the glass blocks are free from concrete staining on underside.

Ezylay Premix Paving Concrete - Insulated

Specifically designed for use with the Ezylay Paving System. 25 Mpa Normal Weight Grade, 8mm maximum aggregate size.

Ezylay Topping Mix

Used for an aesthetic non-slip finish to paving panels.

Ezylay Lifting Lug (for prefabrication)

Used to lift the paving panels from formwork moulds

Acrylic Sealant

Water based acrylic gap sealant to fill in joints between Ezylay Paving Moulds and Formwork to ensure visibility of joint marks on the underside of the panel is minimised.

Ezylay Bond Breaker

Releasing Agent placed on the base of the structural toe and formwork. Formulated to work specifically with the Ezylay Paving Concrete

Construction Grade Sealant

Accelerated moisture curing one-component polyurethane prepolymer sealant with permanent elasticity, high durability and high abrasion and tear resistance.

Used to cover the Expansion Foam for weather resistance whilst allowing for expansion and contraction within the opening.

Flashing Tape (for site pour)

96mm Self adhesive flashing tape placed on structural toe to act as a sliding joint.

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.

Used on the steel/concrete toe as a bond breaker for prefabricated panels.

Used to cover the Promaseal® IBS™ Foam or Equal – Fire Resistant Foam to allow for expansion and contraction within the floor opening.

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 for periods of up to 4 hours depending on application.

7.6mm dia galvanised steel ribbed reinforcing rods

7.6mm hard drawn steel, hot dipped galvanised rods as per AS 1303 with a nominal yield stress of 550 Mpa.- Three hooked rods to be installed between each block in the direction of the main supporting sides. Three straight rods to be installed between each block in the direction of the non-supporting sides. If all sides are supported, then hooked rods are in the direction of the shortest distance. Six rods to be installed around the perimeter joint of the glass block paving panel.