# NORTH AMERICAN MORE PATTERNS. MORE COLORS. MORE SHAPES & SIZES. MORE CHOICES. CREATE MORE.

# **Contents**

Benefits of Glass Block	L
3" Thinline® Series	6
4" Premiere™ Series	8
High Performance Products	1
Solid Glass Brick	14
VetroKWiK™ Installation System	15
Fire Ratings & Code Information	17
High Tech Options	20
Glass Block Options	2
Standard Installation & Methods	22
Design Information & Data	23
4" Premiere™ Series Installation Layouts	24
Typical Construction Details	26
VISTABRIK® Solid Glass Block Details	30
Specifications	34
Basic Line	36
Basic Line Physical & Design Data	39
Design Line	42
Technical Drawings	49
Pegasus Q19 Specifications	5
MYMINIGLASS™	52
Tailor Made	56
Horizontal Block & Pavers	58
Installation Accessories	62
Prefabricated Panels & Windows	7
LightWise® Architectural Systems	72
Glass Block Solar Wall Tubes	74
The Original Glass Block for Crafting	86
DECORATED Glass Block	88
Interior Residential/Commercial Applications	90
Exterior Commercial Applications	94
Notes	98
Warranty & Support	ac







10576 BROADVIEW RD. · CLEVELAND, OH 44147 1.877.738.3711 · 1.440.627.6257

INQUIRIES: INQUIRY@SEVESGLASSBLOCK.COM

# The Glass Block Specialists

Seves Glass Block is the world's leading manufacturer of glass block for architectural and interior design. Our 'Center of Excellence,' in the town of Duchcov in the Czech Republic, houses the three key components of our business; Design, Manufacturing, and Logistics. This centralized approach ensures timely design of new products and line extensions to the market; a consistent high quality product; and overall cost effectiveness. Our success is defined by one clear objective: Maximize the potential of glass block by transforming them from a marginal traditional construction component into an artistic expression of light and space. Leading architects and designers have discovered that glass block is an excellent tool to express their ideas - and turn to Seves Glass Block in order to transfer their ideas into reality.

Seves Glass Block has established a North Americanbased headquarters to better serve the architectural, design, and consumer markets. We have extended our product offerings to include Imperial sizes as well as North American based testing and certifications. Combine this with our already established lines of Design, Basic, and Technology block, and Seves Glass Block offers the most comprehensive collection of Glass Block in the industry!

Our LightWise® Architectural Systems consist of High Performance prefabricated windows and panels. Seves HURRICANE, TORNADO, BLAST, and SECURITY AND DETENTION glass block window systems are designed, engineered, and manufactured to comply with stringent project requirements. Our glass pavers and horizontal products, allow light to move through floors, ceilings, bridges and walkways to brighten any space. Our LightWise® SOLAR WALL TUBES are ideal for increased light transmission through multi-wythe masonry walls, maximizing daylighting opportunities.

Broaden and brighten your horizons with glass block - redesign your surroundings and reorganize spaces. Attractive harmonies of color and different shapes reinvent design geometries, offering new creative and perceptual appeal. Innovative, versatile, and captivating, Seves Glass Block redefines living spaces. This is the added value of a material that can be used to construct and decorate, becoming a furnishing. An architectural solution, in which a single material is hollow or solid and transparent, ensuring durability while transmitting lightness.







# Benefits of Glass Block

Discover the performance and design capabilities of glass block and why glass block is a smart choice for your architectural design or remodeling project. Whether you're an architect, interior designer, or a homeowner looking to increase the "WOW factor" in your next project, glass block products have a lot to offer. Seves Glass Block has transformed glass block from a simple building material into an architectural and artistic element. This has liberated their potential and provided architects, interior designers, and homeowners with a new material to use in the creation of high-level, distinctive designs.

## **Beauty and Versatility**

Extremely versatile, glass block gives designers, architects, and consumers the ability to transform ordinary spaces into places of light, color, and texture. The combination of Seves patterns, sizes, 3D options, and colors provide unlimited design possibilities while providing the long-lasting durability and light transmission that glass block has always been known for.

# Visibility/Light Transmission

Glass block provides exceptional visibility in compliance with ADA guidelines for enclosed areas and has a dynamic relationship with light, both natural and artificial. Through its wide range of patterns & colors, you can choose the appropriate levels of visibility & light transmission to meet your project requirements.

## **Privacy**

Glass block can offer more options of privacy than standard glass. Various patterns and finishes allow you to choose a level of privacy for any project or application, including everything from a glass block shower to glass block windows, walls, and building facades.

# **Energy Efficiency**

Seves 'Energy Saving' Glass Block, with a U-Value of .19, betters the standard in the glass block industry by more than 60%. With this addition to the Seves line, we can meet or exceed most energy requirements for window applications in North America. Horizontal mortar joints also create a 'louvering effect,' which can impact energy costs by reducing thermal heat gain.







## Security

When architects, designers, and homeowners need to add security to their projects, Seves Glass Block has a wide range of solutions to choose from. Available in numerous sizes and patterns, you can choose the level of visibility and security required for your project. Our THICKSET® 60 & 90 product line, as well as our VISTABRIK® and Vetropieno™, are inherently stronger than conventional glass block due to the thickness of the glass. As a result they are more difficult to break, adding a layer of extra protection.

#### **Sound Resistance**

Glass block walls and windows are a preferred material to reduce sound transmission, with the added benefit of being a distinctive design element. Seves offers a range of products that offer varying levels of sound reduction capabilities. (Maximum STC Level of 53) Never worry about noise pollution again!

#### Fire Resistant

An important feature of glass block, critical to safe building design, is the product's inherent fire-resistant property. By varying the face thickness of the glass block and conforming to installation specifications, Seves is able to offer fire-rated products approved and rated according to Underwriters Laboratory and/or NFPA standards. Our glass block are available in 45, 60, and 90-minute fire ratings including our VISTABRIK® and Vetropieno™ solid glass brick. (Glass block fire ratings are tested as a window assembly.)

# **Graffiti & Vandal Resistant**

Never worry about graffiti on your building's exterior again. The surface of the glass block is resilient to abuse from paints, markers, and stickers, with an easier-to-clean quality. This makes it an intelligent choice for commercial buildings, schools, and other public structures.

# Ease of Installation

Seves Glass Block provides easy installation options. You have 3 options: standard installation with mortar, mortarless installation systems, and the purchase of prefabricated panels or windows.

# Sustainability

Seves Glass Block is an advocate of all programs that support and advance environmental and health performance in buildings. (USGBC, LEED, Green Building, etc.) Glass block, made largely from sand and limestone, is 100% recyclable, inert, low-maintenance, highly durable (lasting 50 years or more), and has low construction waste. We also contribute to sustainable design through our day-lighting capabilities and products like energy saving, solar reflective, and self cleaning.







# 3" Thinline® Series

With its 3" block thickness, the Thinline® Series was designed for use in residential and light commercial applications. This collection comes in a wide array of patterns, sizes, clear and bronze-colored glass, with varying levels of light transmission and privacy. Most block are rated with UL-9 or NFPA 257 standards for a minimum of 45-minute fire rating.

Options may include



**Energy Saving** 



Solar Reflective



Self Cleaning



Frosted Block

#### **Nubio**

#### 8" x 8" x 3" | 6" x 8" x 3" 6" x 6" x 3" | 4" x 8" x 3"

Intersecting random wave patterns, provide an attractive appearance, proving maximum light transmission and subtle visual distortion.



#### **Nubio Bronze**

#### 8" x 8" x 3" | 6" x 8" x 3" | 6" x 6"x 3"

The Classic Nubio pattern, made with bronze colored glass.



# Diamond (DM)

#### 8" x 8" x 3" | 6" x 8" x 3" | 6" x 6" x 3" | 4" x 8" x 3"

This repeating diamond pattern features a raised half sphere in each diamond for a stylish look, allowing for maximum light transmission and a medium degree of privacy.



#### **Aktis**

#### 8" x 8" x 3" | 6" x 8" x 3" | 6" x 6" x 3" | 4" x 8" x 3"

Diamond cut pattern creates a unique pattern of light with maximum light transmission and moderate visibility.



#### lce

#### 8" x 8" x 3" | 6" x 8" x 3" | 6" x 6" x 3" | 4" x 8" x 3"

Random textures built over the Nubio pattern. Maximum privacy with medium light transmission without a fixed geometric design.



#### Clarity

#### 8" x 8" x 3" | 6" x 8" x 3" | 6" x 6" x 3" | 4" x 8" x 3"

Faces are smooth and undistorted to transmit the most light and ultimate visibility.



## **Alpha**

#### 8" x 8" x 3"

Circular geometric pattern with maximum light transmission and visual clarity.









# 3" Thinline® Series Physical & Design Data

Glass Block	Actual Block Size¹	Weight of glass block (lb)	Approximate Installed Weight (lb/ ft²)	Number pieces/ sq. ft.	Heat Transmission² U-Value (BTU/hr ft2 °F)	Thermal Resistance² R-value (hr ft2 °F/ BTU)	Visible Light Transmis- sion³ (%)	Shading Coeffi- cient⁴	Sound trans- mission S.T.C. (dB)	Solar Heat Gain Co- efficient <sup>5</sup> (%)	Fire rating
8x8x3 Alpha	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	75	.65	41	.66685	45
8x8x3 Aktis	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	75	.65	41	.66685	45
6x8x3 Aktis	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	75	.65	41	.66685	45
6x6x3 Aktis	5¾" x 7¾"x 3½"	3.1	17.2	4	0.53	1,89	75	.65	41	.66685	45
4x8x3 Aktis	3¾" x 7¾"x 3½"	3.1	18.6	4.5	0.53	1.89	75	.65	41	.66685	45
8x8x3 Clarity	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	84	.65	41	.66685	45
6x8x3 Clarity	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	84	.65	41	.66685	45
6x6x3 Clarity	5¾" x 7¾"x 3½"	3.1	17.2	4	0.53	1,89	84	.65	41	.66685	45
4x8x3 Clarity	3¾" x 7¾"x 3½"	3.1	18.6	4.5	0.53	1.89	75	.65	41	.66685	45
8x8x3 DM (Diamond)	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	75	.65	41	.66685	45
6x8x3 DM (Diamond)	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	75	.65	41	.66685	45
6x6x3 DM (Diamond)	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	75	.65	41	.66685	45
4x8x3 DM (Diamond)	3¾" x 7¾"x 3½"	3.1	18.6	4.5	0.53	1.89	75	.65	41	.66685	45
8x8x3 ICE	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	75	.65	41	.66685	45
6x8x3 ICE	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	75	.65	41	.66685	45
6x6x3 ICE	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	75	.65	41	.66685	45
4x8x3 ICE	3¾" x 7¾"x 3½"	3.1	18.6	4.5	0.53	1.89	75	.65	41	.66685	45
8x8x3 Nubio	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1,89	75	.65	41	.66685	45
6x8x3 Nubio	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	75	.65	41	.66685	45
6x6x3 Nubio	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	83	.65	41	.66685	45
4x8x3 Nubio	3¾" x 7¾"x 3½"	3.1	18.6	4.5	0.53	1.89	75	.65	41	.66685	45
8x8x3 Bronze	7¾" x 7¾"x 3½"	5.3	15.9	2.25	0.53	1.89	52	.52	41	N/A	45
6x8x3 Bronze	5¾" x 7¾"x 3½"	4.4	16.4	3	0.53	1.89	52	.52	41	N/A	45
6x6x3 Bronze	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1.89	52	.52	41	N/A	45

<sup>&#</sup>x27;Size-Block are manufactured to a 1/32" [Imm tolerance]

Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.

Light Transmission-Values +/-5%

Hight Transmission/Shading Coefficient-Estimated figures based on accumulated data.

Shading Coefficient-Based on 8"-sq. unit; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions.

# 4" Premiere™ Series

The Premiere™ Series consists of 4" block and special shapes for both commercial and residential applications. Architects and designers are familiar with this collection as the standard in the glass block industry. Most are clear glass block, in varying sizes, with numerous pattern choices. Patterns are chosen to control variations in light transmission and levels of privacy. These block can offer enhanced resistance to impact, fire, and sound transmission. Most block are rated with UL-9 or NFPA 257 standards for a minimum of 45-minute fire rating.

Options may include



**Energy Saving** 



Solar Reflective



Self Cleaning



Frosted Block

#### **Nubio**

#### 12" x 12" x 4" | 8" x 8"x 4" | 6" x 8"x 4" | 6" x 6" x 4"

#### 4" x 8" x 4"

Intersecting random wave patterns, provide an attractive appearance, proving maximum light transmission and subtle visual distortion.



# **Arctic**

#### 8" x 8" x 4"

Frosted glass appearance yields excellent privacy with no pattern and moderate light transmission.



#### **Clarity**

#### 12" x 12" x 4" | 8" x 8" x 4" | 6" x 8" x 4" | 6" x 6" x 4"

#### 4" x 8" x 4"

Faces are smooth and undistorted to transmit the most light and ultimate visibility.



## **Alpha**

#### 8" x 8" x 4"

Circular geometric pattern with maximum light transmission and visual clarity.



#### Cortina

#### 8" x 8" x 4" | 6" x 8" x 4" | 6" x 6" x 4" | 4"x 8" x 4"

Random textures built over the Nubio pattern. Maximum privacy with medium light transmission without a fixed geometric design.



#### **ICESCAPES®**

#### 12" x 12" x 4"

Non-directional pattern which allows light in without sacrificing privacy. Maximum light transmission with medium to maximum privacy.



#### **Cross Ribbed**

#### 8" x 8" x 4"

Vertical ribs on one face and horizontal ribs on the other side. This unique design diffuses light while allowing maximum light transmission and a medium degree of privacy.



#### Cross Large

#### 12" x 12" x 4"

Large rounded perpendicular flutes diffuse light while allowing maximum light transmission with a medium degree of privacy.



#### **Light Diffusing**

#### 8" x 8" x 4"

The fine grid design of closely spaced ridges helps reduce glare while offering moderate light transmission and maximum privacy.



#### **Opal - Plain**

#### 8" x 8" x 4"

Patternless white glass reduces light transmission while achieving maximum level of privacy. (No Options Available)



## Tartan™

#### 8" x 8" x 4"

A historic re-creation of the classic pattern from the 1930s. Pattern has concave flutes running vertically on one face and horizontally on the other allowing for maximum light transmission and moderate privacy.



#### **Opal - Silk**

#### 8" x 8" x 4"

Fine grid pattern on interior face of block reduces light transmission while achieving maximum level of privacy. (No Options Available)



### **ARGUS® Parallel Fluted**

#### 8" x 8" x 4"

Rounded parallel flutes on each face diffuse light while allowing maximum light transmission and a medium degree of privacy.



#### **ARGUS®**

#### 6" x 6" x 4". 8" x 8" x 4"

Rounded perpendicular flutes diffuse light while allowing maximum light transmission and a medium degree of privacy.



# **Special Shapes & Finishing Units**

Shapes such as Corners (90°), Allbend™ (22.5°), Tridron® (45°), and Radial (12.5°) assist architects/designers in creating movement with glass block (corners, radius, serpentine walls, etc.). Finishing Units, like the EndBlock™ and Double-End™, are used to terminate walls with like materials and patterns.

#### Allbend™ - Nubio / Cortina

With its 22.5° design, this block is a brilliant way to create smooth graceful curves and columns with a consistency of mortar joint spacing.

#### 90º Radius Corner - Nubio / Cortina

This 90° Radius edged corner block results in a gentle rounded continuous glass face.

#### EndBlock™ - Nubio / Cortina

Rounded finishing block ideal for vertical and horizontal applications of panels, walls and dividers.

## **Double-End™ -** Nubio / Cortina

Curved block intended to transition EndBlock™ used in horizontal and vertical applications, or for step-down designs. (Used with 8x8x4 EndBlock™)

# 90° Sharp Corner - 4" Premiere™

**Nubio / Cortina / Clarity** 

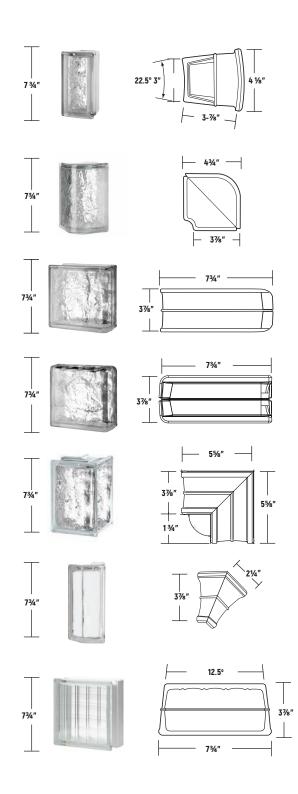
The 90° 'Sharp' edged corner block is a design alternative to the 90° radius edged corner block. Intended for interior use only.

#### Tridron® - Nubio / Cortina / Clarity

This unique block lets you design walls with 45° increments. Intended for interior use only.

#### Radial - Tartan™

Made with the same classic historic pattern from the 1930s as the Tartan™. This block's unique 12.5° design allow it to create a smooth 90° radius corner while utilizing a minimum of 7-block.



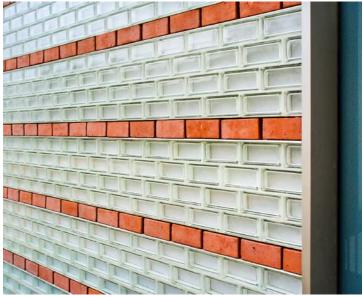
# 4" Premiere™ Series

# 4" Premiere™ Physical & Design Data

Glass Block	Actual Block Size <sup>1</sup>	Weight of glass block (lb)	Approx- imate Installed Weight (lb/ft²)	Number pieces/ sq. ft.	Heat Trans- mission² U-Value (BTU/hr ft2 °F)	Thermal Resistance² R-value (hr ft2 °F/ BTU)	Visible Light Transmis- sion³ (%)	Shading Coeffi- cient <sup>4</sup>	Sound transmission S.T.C. (dB)	Solar Heat Gain Coeffi- cient <sup>s</sup> (%)	Fire rating
8x8x4 Alpha	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	92	.65	39	.66685	45
8x8x4 Arctic	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	67	.65	39	.66685	45
8x8x4 ARGUS®	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	92	.65	39	.66685	45
6x6x4 ARGUS®	5¾" x 5¾"x 3%"	3.8	20.8	4	0.53	1,89	91	.65	37	.66685	45
8x8x4 ARGUS® Parallel	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	92	.65	39	.66685	45
8x8x4 Clarity	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	91	.65	39	.66685	45
6x8x4 Clarity	5¾" x 7¾"x 3%"	4.9	20.1	3	0.53	1,89	91	.65	41	.66685	45
6x6x4 Clarity	5¾" x 5¾"x 3%"	3.8	20.8	4	0.53	1,89	91	.65	37	.66685	45
4x8x4 Clarity	3¾" x 7¾"x 3%"	3.6	20.8	4.5	0.53	1,89	91	.65	41	.66685	45
12x12x4 Clarity	11¾" x11¾"x 3%"	15.7	23.3	1.0	0.53	1,89	91	.63	35	.66685	N/A
8x8x4 Cortina	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	67	.65	39	.66685	45
6x8x4 Cortina	5¾" x 7¾"x 3%"	4.9	20.1	3	0.53	1,89	75	.65	41	.66685	45
6x6x4 Cortina	5¾" x 5¾"x 3%"	3.8	20.8	4	0.53	1,89	67	.65	37	.66685	45
4x8x4 Cortina	3¾" x 7¾"x 3%"	3.6	20.8	4.5	0.53	1,89	67	.65	41	.66685	45
8x8x4 Cross Ribbed	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	55	.65	39	.66685	45
12x12x4 Cross Large	11¾" x11¾"x 3%"	15.7	23.3	1.0	0.53	1,89	55	.63	35	.66685	N/A
12x12x4 Icescape	11¾" x11¾"x 3%"	15.7	23.3	1.0	0.53	1,89	67	.63	35	.66685	N/A
8x8x4 Light Diffusing	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	51	.65	39	.66685	45
8x8x4 Nubio	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	75	.65	39	.66685	45
6x8x4 Nubio	5¾" x 7¾"x 3%"	4.9	20.1	3	0.53	1,89	75	.65	41	.66685	45
6x6x4 Nubio	5¾" x 5¾"x 3%"	3.8	20.8	4	0.53	1,89	75	.65	37	.66685	45
4x8x4 Nubio	3¾" x 7¾"x 3%"	3.6	20.8	4.5	0.53	1,89	75	.65	41	.66685	45
12x12x4 Nubio	11¾" x11¾"x 3¾"	15.7	23.3	1.0	0.53	1,89	75	.63	35	.66685	N/A
8x8x4 Tartan™	7¾" x 7¾"x 3%"	5.7	19.5	2.25	0.53	1,89	67	.65	39	.66685	45
8x8x4 Opal Plain	7¾" x 7¾"x 3%"	5.7	19.5	2.25	NPD	NPD	19	N/A	NPD	NPD	N/A
8x8x4 Opal Silk	7¾" x 7¾"x 3%"	5.7	19.5	2.25	NPD	NPD	17	N/A	NPD	NPD	N/A

<sup>&</sup>lt;sup>1</sup>Size-Block are manufactured to a 1/32" (1mm tolerance)





<sup>&</sup>lt;sup>2</sup> Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.

<sup>&</sup>lt;sup>3</sup>Light Transmission-Values +/-5% <sup>4</sup>Light Transmission/Shading Coefficient-Estimated figures based on accumulated data

<sup>&</sup>lt;sup>5</sup> Shading Coefficient-Based on 8\*-sq. unit; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions. NPD = No Performance Data

# **High Performance Products**

Seves High Performance Glass Block products are comprised of thicker faced and solid glass block units. This increase in glass composition enhances the collections performance capabilities and overall benefits compared to standard block in the industry. These thick faced and solid glass block can offer extended fire ratings, reduced sound transmission, increased impact resistance and durability as well as some ballistic and hurricane resistant capabilities.

# THICKSET® Products UL-9 | NFPA 257 | NAMI

THICKSET® Products extend our 45-minute fire ratings to include 60 and 90-minute rated window assemblies. Products are certified as being tested to UL-9 test standards or NFPA-257. The unique THICKSET® block design also offers reduced sound transmission capabilities, higher levels of impact resistance and is stronger, safer and more secure than standard block. THICKSET® 90 glass block units are also approved for installation in hurricane and high impact applications in coastal areas. These products are also available by special order with color.

THICKSET® 90 Products are designed, engineered and tested to meet Miami/Dade, State of Florida & Texas Department of Insurance requirements for High Velocity Wind Zones and Impact Resistance.

 $\textbf{Miami/Dade NOA's:}\ 20\text{-}1110.07\ \&\ 20\text{-}1110.08\ |\ \textbf{State of Florida:}\ FL5357\ \&\ FL1363\ |\ \textbf{Texas Department of Insurance:}\ WIN-62\ \&\ WIN-63\ |\ \textbf{Min-63}\ |\ \textbf{Min-64}\ |\ \textbf{Min-64}$ 

#### Nubio - THICKSET® 60

Provides a 60-minute fire rating. Intersecting random wave patterns, provide an attractive appearance, proving maximum light transmission and subtle visual distortion.



#### Spray - THICKSET® 60

Provides a 60-minute fire rating. Pattern is a combination of frosted and a fine grid design of closely spaced ridges. Pattern offers moderate light transmission and maximum degree of privacy.



#### Clarity - THICKSET® 60

#### 8" x 8" x 4"

Provides a 60-minute fire rating. Faces are smooth and undistorted to transmit the most light and allow ultimate visibility. The best choice for passive solar collection and visual clarity.



#### Nubio - THICKSET® 90

Provides a 90-minute fire rating. Intersecting random wave patterns, provide an attractive appearance, proving maximum light transmission and subtle visual distortion.



#### Clarity - THICKSET® 90

#### 8" x 8" x 4" | 6" x 6" x 4"

Provides a 90-minute fire rating. Faces are smooth and undistorted to transmit the most light and allow ultimate visibility. The best choice for passive solar collection and visual clarity.



#### Endura - THICKSET® 90

#### 8" x 8" x 4"

Provides a 90-minute fire rating. The pattern has narrow flutes that run vertical on one face and horizontal on the opposite face, providing moderate light transmission and maximum privacy.



# THICKSET® Physical & Design Data

Glass Block	Actual Block Size <sup>1</sup>	Weight of glass block (lb)	Approx- imate Installed Weight (lb/ft²)	Number pieces/ sq. ft.	Heat Transmission² U-Value (BTU/hr ft2 °F)	Thermal Resistance² R-value (hr ft2 °F/ BTU)	Visible Light Transmis- sion³ (%)	Shading Coeffi- cient <sup>4</sup>	Sound trans- mission S.T.C. (dB)	Solar Heat Gain Co- efficient <sup>s</sup> (%)	Fire rating
6x6x4 Clarity THICKSET® 90	5¾" x 5¾"x 3¾"	5.5	23.7	4	0.51	1.96	70	.65	48	.66685	90
8x8x4 Clarity THICKSET® 60	7¾" x 7¾"x 3%"	7.8	22.7	2.25	0.51	1.96	75	.65	48	.66685	60
8x8x4 Clarity THICKSET® 90	7¾" x 7¾"x 3%"	10.6	25.5	2.25	0.51	1.96	70	.65	50	.66685	90
8x8x4 Nubio THICKSET® 60	7¾" x 7¾"x 3%"	7.8	22.7	2.25	0.51	1.96	49	.65	48	.66685	60
8x8x4 Nubio THICKSET® 90	7¾" x 7¾"x 3%"	10.6	25.5	2.25	0.51	1.96	38	.65	50	.66685	90
8x8x4 Spray THICKSET® 60	7¾" x 7¾"x 3¾"	7.8	22.7	2.25	0.51	1.96	45	.65	48	.66685	60
8x8x4 Endura THICKSET® 90	7¾" x 7¾"x 3½"	10.6	25.5	2.25	0.51	1.96	38	.65	50	.66685	90

Size-Block are manufactured to a 1/32" [1mm tolerance]

<sup>&</sup>lt;sup>2</sup>Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.

<sup>&</sup>lt;sup>4</sup> Light Transmission/Shading Coefficient-Estimated figures based on accumulated data

Shading Coefficient-Based on 8'-sq. unit; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions

# **High Performance Products**

Seves VISTABRIK® Solid Glass Block features low distortion transparency for clear observation through sturdy, 3-inch thick glass block partitions, windows, and walls into areas where visual supervision is a must. Plus, VISTABRIK® requires minimal maintenance, reduced replacement costs, is exceptionally durable, and highly resistant to impact, bullets, and fire. In short, it's ideal for any facility subject to ballistic requirements, vandalism, high noise levels, graffiti, fire, and other security concerns. VISTABRIK® is widely used in institutional environments, commercial settings, schools, transportation terminals, and numerous other public spaces and buildings, including courthouses, embassies, and police stations.

# VISTABRIK® Solid Glass Block (45, 60 & 90 Minute Fire-Rated)

#### **VISTABRIK®**

3" solid glass block. Clear visibility, durable, impact and vandal resistant with maximum light transmission.

\*(Also in 8" x 8" x 1.5" Pavers)



#### **VISTABRIK®**

3" solid glass block. Clear visibility, durable, impact and vandal resistant with maximum light transmission.



#### **VISTABRIK®**

#### 8" x 8" x 3" Stippled Pattern

3" solid glass block with stipple finish to add privacy. Durable, impact and vandal resistant with good light transmission.

\*(Also in 8" x 8" x 1.5" Pavers)



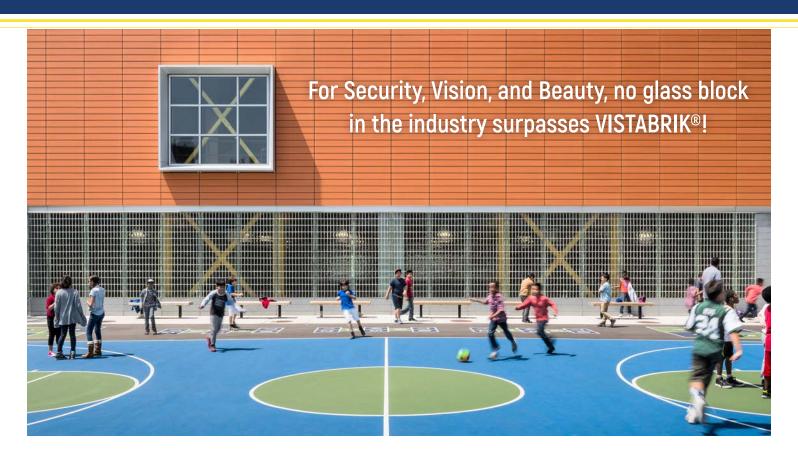
#### **VISTABRIK®**

#### 4" x 8" x 3"

3" solid glass block. Clear visibility, durable, impact and vandal resistant with maximum light transmission.







# **Benefits:**

#### **Impact Resistant**

Try to break a VISTABRIK® Glass Block; we dare you! Compared to conventional glass, it's virtually impossible. In short, VISTABRIK® easily resists thrown objects, forcible entry, and attempts at vandalism.

#### **Bullet Resistant**

UL® tested and component recognized for Level 1, 2, and 6, VISTABRIK® resists penetration from high-impact ballistics, including 9mm and .357 magnum bullets.

#### **Fire Resistant**

Ideal for fire resistance in masonry structures, VISTABRIK® is UL listed as 45-, 60-, and 90-minute fire rated window assemblies of up to 100 square feet.

#### **Graffiti Resistant**

VISTABRIK® has a hard glass surface that provides a "non-stick" surface for paint that aids in the quick removal of graffiti. When necessary, Vistabrik® also resists damage from harsh chemicals and cleaning compounds.

## **Durability**

VISTABRIK® has the ability to withstand excessive physical abuse and significant impacts while maintaining its original structural integrity. The increased durability provides the benefits of a 50+ year lifespan, thus reducing overall life-cycle costs.

#### **Weather Resistant**

VISTABRIK® is impervious to natural weather-related elements. It resists water penetration from rain or snow. Plus, it withstands earthquake tremors, and breakage from flying objects in high winds when correctly installed in compliance with Seves Glass Block specification guidelines.

#### **Cost Effective**

Outstanding durability, exceptionally high quality, minimal maintenance, and economical long-term life cycle costs are why VISTABRIK® was chosen for use in numerous applications throughout North America.

## Visibility/Daylighting

VISTABRIK® provides exceptional visibility in compliance with ADA guidelines for enclosed areas. Plus, it is scratch-resistant and transmits 90% of available light in both directions without any yellowing, clouding, or weathering.

## **Beauty**

Extraordinarily versatile and available in five aesthetically pleasing sizes and styles, VISTABRIK® offers virtually limitless design possibilities.

#### **Noise Resistant**

Three inches of solid glass makes VISTABRIK® a dense barrier to sounds from trains, traffic, crowds, sirens, and machinery with a 53 STC level and a noise reduction coefficient (NRC) of 0.05

# Solid Glass Brick

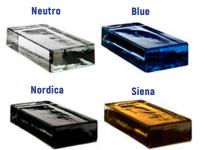
Seves Vetropieno™ Solid Glass Brick brings together the appeal of traditional brick and the transparency and luminosity of glass. This completely unique design solution can be used in place of traditional bricks to create dramatic interior, exterior or partition walls that maximize the passage of light – or as a subtle design accent that adds a touch of style, character, and color. Vetropieno™ is a versatile building element that can also be installed in a horizontal application. Vetropieno™ is available in a 'clear' version and three designer colors – Nordica Siena and Blue. Vetropieno Americano™ is available in the 'clear' version, only.

# VETROPIENO™ Solid Glass Brick (45, 60 & 90 Minute Fire-Rated)

## **Vetropieno**<sup>™</sup> Rettangolare

#### 4.60" x 2.125" x 9.45"

Provides a 90-minute fire rating. 100% solid glass bricks in clear and 3-designer colors. Glass bricks deliver a unique visual and light transparency unlike those of standard hollow brick.



# Vetropieno Americano™ Rettangolare

3.625" x 2.25" x 7.625"

Provides a 90-minute fire rating. 100% solid glass bricks in clear. Glass bricks deliver a unique visual and light transparency unlike those of standard hollow brick. (Sized to correlate with modular US brick sizes.)



#### **Vetropieno™** Quadrato 4.625" x 2.125" x 4.725"

Provides a 90-minute fire rating. 100% solid glass block in clear and 3-designer colors. Can be used in conjunction with Vetropieno™ Rettangolare to create running bond pattern.

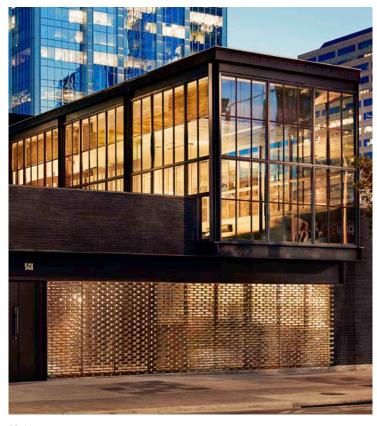


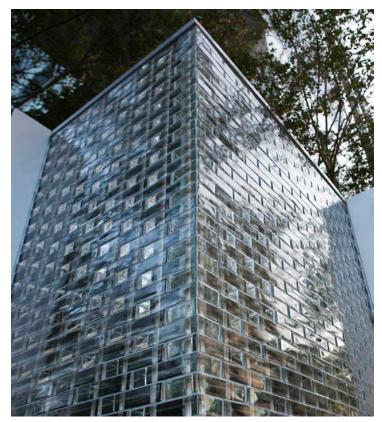
# Vetropieno Americano™ Quadrato

3.625" x 2.25" x 3.75"

Provides a 90-minute fire rating. 100% solid glass block in clear. Can be used in conjunction with Vetropieno Americano™ Rettangolare to create running bond pattern.







# VetroKWiK™ Installation System

Simplify the installation of Seves Vetropieno™ glass brick with the VetroKWiK™ Mortarless Installation System. This exclusive 'interlocking technology' offers an alternative to masonry installation for both interior and exterior applications. The VetroKWiK™ installation components consist of dovetail locking straight and corner layout sections creating the base for the project. Once established, the Vetropieno™ glass brick is secured in a 'running bond pattern' with interlocking modules. Precision engineered; these interlocking modules secure the block in place while creating uniform joint-spacing. VetroKWiK™ modules are available in Clear Polycarbonate or ABS in Gray or White.



# **Benefits**

## **Improved Precision**

Our technology ensures the most accurate and consistent installation and Joint-Spacing for glass brick on the market.

#### **Cost Effective**

Building with VetroKWiK™ can be 10% to 20% less expensive than standard mortar installation methods. This cost reduction is associated with the increase in productivity and reduction in labor costs.

#### **Faster to Build**

Our system accelerates the process of creating the footprint of your project, as well as allowing both Professionals and DIYs (Do-It-Yourself), to install more bricks per hour.

## **Transparency of Joints**

The VetroKWiK™ in clear polycarbonate system allows full light transmission throughout the entire assembly. Now design professionals have the ability to choose different lighting techniques and colors for their individual applications.





# High Performance Products

# **High Performance Products Physical & Design Data**

Glass Block	Actual Block Size <sup>1</sup>	Weight of glass block (lb)	Approx- imate Installed Weight (lb/ft²)	Number pieces/ sq. ft.	Heat Trans- mission <sup>2</sup> U-Value (BTU/hr ft2°F)	Thermal Resistance <sup>2</sup> R-value (hr ft2 °F/ BTU)	Visible Light Trans- mission³ (%)	Shading Coeffi- cient <sup>4</sup>	Sound trans- mission S.T.C. (dB)	Solar Heat Gain Coefficient <sup>5</sup> (%)	Fire rating
			THI	CKSET®	Produ	cts					
6x6x4 Clarity THICKSET® 90	5¾" x 5¾"x 3%"	5.5	23.7	4	0.51	1.96	70	.65	48	.66685	90
8x8x4 Clarity THICKSET® 60	7¾" x 7¾"x 3%"	7.8	22.7	2.25	0.51	1.96	75	.65	48	.66685	60
8x8x4 Clarity THICKSET® 90	7¾" x 7¾"x 3%"	10.6	25.5	2.25	0.51	1.96	70	.65	50	.66685	90
8x8x4 Nubio THICKSET® 60	7¾" x 7¾"x 3%"	7.8	22.7	2.25	0.51	1.96	49	.65	48	.66685	60
8x8x4 Nubio THICKSET® 90	7¾" x 7¾"x 3%"	10.6	25.5	2.25	0.51	1.96	38	.65	50	.66685	90
8x8x4 Spray THICKSET® 60	7¾" x 7¾"x 3%"	7.8	22.7	2.25	0.51	1.96	45	.65	48	.66685	60
8x8x4 Endura THICKSET® 90	7¾" x 7¾"x 3%"	10.6	25.5	2.25	0.51	1.96	38	.65	50	.66685	90
			Vist	abrik®	Produ	cts					
8x8x3 VISTABRIK®	7%" x 7%"x 3"	15.4	40	2.25	0.7	1.42	90	49.4	53	.75785	90
8x8x3 VISTABRIK® Stipple	7%" x 7%"x 3"	15.4	40	2.25	0.7	1.42	83	49.4	53	.75785	90
6x8x3 VISTABRIK®	5%" x 7%"x 3"	9.9	40	3	0.7	1.42	90	49.4	53	.75785	90
4x8x3 VISTABRIK®	3%" x 7%"x 3"	7.9	40	4.5	0.7	1.42	90	49.4	53	.75785	90
			Vetro	pieno	™ Prod	ucts					
Neutro Rettangolare	4.60" x 2.125" x 9.45"	7.7	51.8	6.5	0.62	1.61	44	58.6	43	51	90
Neutro Quadrato	4.625" x 2.125" x 4.725"	3.7	51.2	13	0.62	1.61	44	58.6	43	51	90
Blue Rettangolare	4.60" x 2.125" x 9.45"	7.7	51.8	6.5	0.62	1.61	7	42.5	43	37	90
Blue Quadrato	4.625" x 2.125" x 4.725"	3.7	51.2	13	0.62	1.61	7	42.5	43	37	90
Nordica Rettangolare	4.60" x 2.125" x 9.45"	7.7	51.8	6.5	0.62	1.61	2	39.1	43	34	90
Nordica Quadrato	4.625" x 2.125" x 4.725"	3.7	51.2	13	0.62	1.61	2	39.1	43	34	90
Siena Rettangolare	4.60" x 2.125" x 9.45"	7.7	51.8	6.5	0.62	1.61	8	40.2	43	35	90
Siena Quadrato	4.625" x 2.125" x 4.725"	3.7	51.2	13	0.62	1.61	8	40.2	43	35	90
		Vetro	pieno	Amer	icano™	' Produc	ts				
Neutro Rettangolare	3.675" x 2.250" x 7.675"	5.29	51.7	7	0.62	1.61	44	58.6	43	51	90
Neutro Quadrato	3.675" x 2.250" x 3.750"	2.64	52.5	14	0.62	1.61	44	58.6	43	51	90

<sup>3</sup> Light Transmission-Values +/-5%

\*Light Transmission/Shading Coefficient-Estimated figures based on accumulated data.

\*Shading Coefficient-Based on 8"-sq. unit; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions.



Size-Block are manufactured to a 1/32" [Imm tolerance]

Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.

# Fire Ratings & Code Information

All sizes (exceptions listed below) of Premiere™, High Performance and Thinline® Series, Basic and Design glass block have at least a 45-minute fire rating when used as a window assembly within a one hour fire-rated wall assembly. All THICKSET® 90 (thick-faced) and solid glass block (VISTABRIK® and Vetropieno™) have fire ratings of up to 90 minutes, and the THICKSET® 60 glass block have fire ratings of up to 60 minutes when used as window assemblies and where permitted by code.

#### Seves Glass Block units that are not fire-rated:

- All 12" x 12" sizes
- All Alpha® pattern block; All Opal Block
- All Corner block, Tridron® 45° Block® units, EndBlock™, Double-End™, Allbend™ 22.5° and Radial 12.5° finishing units
- All VISTABRIK® paver units
- Injected Color

#### Panel Sizes and Dimension Limitations

Seves Glass Block products listed above have been tested and classified by Underwriters Laboratories (UL®) or NFPA for use as fire-rated window assemblies to panel sizes and dimension limitations listed below:

- With the exception of all 12" x 12" sizes, finishing block, corner block, Alpha® pattern block and Opal block, all Premiere™ Series and Thinline® Series glass block in panels up to 120 square feet in masonry walls or 94 square feet in non-masonry walls are classified by Underwriters Laboratories and NFPA, for use as 45-minute-rated window assemblies.
- These panels are usually acceptable as window assemblies for use in fire separation walls that are rated an hour or less.
- THICKSET® 60 Block are listed for use as a 45- or 60-minute firerated window assemblies in panels up to 100 square feet.
- THICKSET® 90 Block, VISTABRIK® and Vetropieno™ Solid Glass Bricks are all listed for use as 45-, 60- or 90-minute fire-rated window assemblies in panels up to 100 square feet.
- Where permitted by building codes, glass block fire-rated window assemblies having a fire resistance rating of not less than 45 minutes may be used as 'opening protectives.' These assemblies shall not exceed 25% of the wall areas separating a tenancy from a corridor or a corridor from an enclosed vertical opening or one firerated area from another fire-rated area.
- Exception: Although glass block masonry systems have been tested as window assemblies (not wall assemblies), they may be used as one-hour fire partitions as required for corridors in the enclosure of atriums only when sprinkler protection is provided on occupied

## 45 and 60 Minute Rated Construction

- All 45- and 60-minute rated Seves Glass Block may be used in both masonry and non-masonry (steel or wood stud framing with gypsum board) walls.
- These rated glass block windows may be framed and anchored with either Seves® Panel Anchor construction or channel-type restraints.
- The use of a fire retardant type sealant for head and jamb locations is required.
- Specifications and construction details for such panels are as per Seves Glass Block recommendations.
- · Non-masonry, fire-rated steel stud with gypsum board wall assemblies must conform to UL® listed wall assembly #U465.

• Framing and support of the rated glass block window assembly shall be provided with double-studding at the jamb locations with height of supporting wall limited to no more than 3 feet.

#### 90 Minute Rated Construction

- Where permitted by building codes, all THICKSET® 90-minute VISTABRIK® and Vetropieno™ rated Seves Glass Block may be used in masonry walls only.
- 90-minute rated glass block window assemblies must be framed and anchored with 1/4" thick steel (not aluminum) channel-type restraints or masonry chases. The use of panel anchor construction is not permitted.
- The use of a fire retardant type sealant for head and jamb locations is required.
- Specifications and construction details of such panels are as per Seves Glass Block recommendations.
- Twice the typical thickness (¾" total) of expansion material is required at head and jamb locations.

#### 45 Minute Rated Curved Construction

• The glass block noted under 90 minute rating and those 8" x 8" x 4" sized glass block noted under 45 minute rating are classified for use in masonry walls as curved window assemblies, provided that the radius of the assembly is at least twice the opening width (i.e. chord length).

# Code Compliance

All of our fire-rated glass block products are certified with Underwriters Laboratories or NFPA. A listing of our products can also be viewed on the Underwriters Laboratories Website.

- U.L. Classification: R2556 (For Glass Block)
- U.L. Classification: R18572 (For Plastic Spacers)
- In accordance with NFPA 257 and UL-9
- NAMI Certifications

# **Building Code and National Standards References:**

- International Building Code (IBC)
- International Residential Code (IRC)
- Canadian Standards Association (CSA) A371-94 "Masonry Construction for Buildings"
- Canadian Standards Association (CSA) S304.1-94 "Masonry Design for Buildings"
- TMS 402/602 "Building Code Requirements and Specifications for Masonry Structures"

# Fire Ratings & Code Information

# Fire-Rated Glass Block Window Assemblies

Premiere™ Series Glass Block, THICKSET® 60, THICKSET® 90, VISTABRIK®, and Vetropieno™ Solid Glass Brick units have been tested and classified by Underwriters Laboratories (UL-9) and/or NFPA 257 for use in fire-rated window assemblies to panel sizes and dimension limitations as listed.

	Masonr	y Wall C	onstru	ction	Non-Masonry Wall Construction						
	Panel Limitations		Fire Rating				Panel Limitations			Fire Rating	
Product	Max. Area / Panel	Max Ht. Or Width	45 Min.	60 Min.	90 Min.	Product Max. Area / Panel Max Ht. or 45 Min.					
Thinline® Series	120 sq. ft.	12 ft.	•			Thinline® Series	94 sq. ft.	10.75 ft.	•		
Premiere <sup>™</sup> Series	120 sq. ft.	12 ft.	•			Premiere™ Series	94 sq. ft.	10.75 ft.	•		
THICKSET® 60	100 sq. ft.	10 ft.	•	•		THICKSET® 60	94 sq. ft.	10.75 ft.	•	•	
THICKSET® 90	100 sq. ft.	10ft.	•	•	<b>*</b> *	THICKSET® 90	94 sq. ft.	10.75 ft.	•	•	
VISTABRIK®	100 sq. ft.	10 ft.	•	•	<b>*</b> *	VISTABRIK®	94 sq. ft.	10.75 ft.	•	•	
Vetropieno™	100 sq. ft.	10 ft.	•	•	<b>*</b> *	Vetropieno™	94 sq. ft.	10.75 ft.	•	•	

<sup>\*4</sup>" steel channel.  $\frac{3}{4}$ " thick expansion material at head and jambs, and fire retardant sealant are required.



# Glass Block Fire Rating Facts



When specifying or meeting the newer, more stringent Building Codes for fire rated glazing in windows, doors, and walls, it is very important to understand the differences when determining its approved applications. Fire Rated Glass Block used today and for the past 70+ years has traditionally been tested and certified in accordance with UL-9 or NFPA 257 test standards. These are considered Fire Rated Window Assemblies. These standards subject the glass block to the fire endurance and hose steam tests. These tests do not measure the radiant heat transmission, therefore, these products are classified as a Fire Protective and are subject to application and size limitations.

Interior windows are limited to 45 minutes, exterior windows are limited to 90 minutes, and both to 25% of the entire wall area in 1 hour fire partitions/corridors, smoke barriers, incidental use areas, and mixed occupancy separations. The application and sizes are limited by the IBC based on the fire separation distance.

#### Fire Rated WALL assemblies are tested to ASTM E-119 or UL 263 Standards.

The fire-rated glass product is subject to the fire endurance test, the radiant heat test and the hose stream test. If the fire rated glass block remains intact and limits the temperature rise to less than 250 degrees F above ambient on the non-fire side, the fire rated glass product passes. These products are classified as Fire Resistive and can used up to the maximum size tested. Currently, there is no glass block on the market today that meet the requirements for a wall-rated assembly meeting ASTM E-119 or UL 263 standards.

# **Coming in Fall 2021!**

ASTM E-119 Wall-rated products will be available for up to two hour fire-rating.

# **High Tech Options**

Seves has created High-Tech Options to enhance our basic block characteristics. Energy Savings, Self-Cleaning, Solar-Reflecting & Frosted technologies add value to architectural projects due to their high performance characteristics and sustainable building design.

# **Energy Saving**



Lets in what you want in and keeps out what you want out! Introducing Energy Savings 1.1. The most energy efficient glass block in the market today.

U-value of the NEW Energy Saving 1.1 glass block is .19 Btu/hr ft °F

Our patented design incorporates 2 sheets of low-emissivity coated glass inserts sandwiched inside the block creating a 2-chamber system. The Low-E coating reflects heat back to its source helping your business or home to stay cooler in the summer and warmer in the winter. Air in the 2 chambers is replaced with Argon gas. This noble gas, with its inherent thermal conductivity value, also contributes to these block' increased energy efficiency.

Variation in block and options can reduce U-Value to .12

Size Availability: 883, 884 & 1919/8 May require longer lead times and minimum quantities.

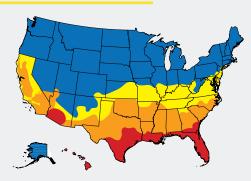
Compare Standard Block to Energy Savings:								
	Standard	Energy Savings	Increased Performance					
SHGC (g-Value)	0.68	0.42	26%					
U-value	0.53	0.19	64%					

#### **Features and Benefits:**

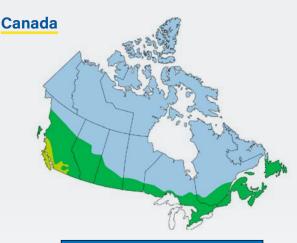
- Made of 100% real glass block.
- Reduced energy cost compared to standard glass block.
- Allows for superior day lighting .
- Will not scratch or discolor over time.
- Available in a wide range of patterns, visibility, and privacy
- Graffiti resistant, damage resistant, easy to clean and nearly maintenance free.



#### **United States of America**



WINDOW PERFORMANCE CRITERIA (United States)							
CLIMATE ZONE	U-Value (Btu/h•sq. ft.°F)						
Northern	0.27						
North Central	0.30						
South Central	0.30						
Southern	0.40						



WINDOW PERFORMANCE CRITERIA (Canada)							
ZONE	Maximum U-FACTOR (Btu/h•sq. ft.°F)						
1	0.28						
2	0.25						
3	0.21						

# Glass Block Options

# **Solar Reflecting**



The Solar Reflecting option reduces heat loss from the building in the winter. In the summer it reduces overheating of the interior and protects against UV radiation.

Solar Reflecting glass block comes with a Thermal insulation film and Protective cover film that is removed following installation.

Adding the Solar Reflecting option to some standard block can reduce Light Transmittance by as much as 60%; UV transmittance is reduced to .01; and can reduce the Total Solar Energy Transmittance (SHGC or G-Value) by as much as 45%. Variation in block and options can reduce G-Value (SHGC) to .24.

Size Availability: 883, 884,1919/8 & 2424/8. Only available on 'flat surfaced' block. May require longer lead times and minimum quantities.

# Self Cleaning



The Self Cleaning option is a special 2-part coating applied to the glass block face that activates the hydrophilic action of water. This thin, colorless coating has no impact to the natural view of the glass and is scratch resistant and durable over time. In a vertical application, most of the water (up to 90%) drains off the surface, which makes the glass surface naturally cleaner for a longer period.

This Self Cleaning technology is a highly innovative solution for glass block installations in hard-to-clean areas and is great for areas with high humidity conditions like showers and bathrooms.

May require extended lead times and minimum quantities.

# **Frosted Block**



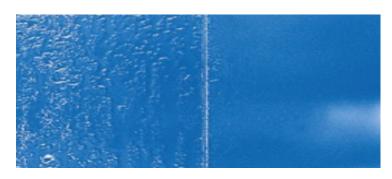
The Frosted option for our glass block products is perfect for when you need a bit more privacy or reduction in light transmission. A fine sand blasted finish can be applied to one or both faces of the glass. This option is available for most of our standard clear and colored glass products. The Frosted finish creates a soft white opaque appearance, while still allowing the appearance of the pattern or color to remain.

Available on most block. May require extended lead times and minimum quantities.

#### Impact to block performance with Solar Reflective **Coating added to Standard Block**

Characteristic/Product	Standard 8" X 8" X 4"	Solar Reflective 8" X 8" X 4"	Increased Performance as %
Light Transmittance	0.80	0.50	38%
UV Transmittance	0.56	0.01	98%
Total Solar Energy Transmittance	0.79	0.54	46%







**Non-Frosted Block Frosted Block** 



# Standard Installation & Methods

#### **Installed Panel Weight**

Refer to Physical Data Tables for weight of panels installed with mortar. Glass block panels installed with the ProVantage® Glass Block Installation System are up to 25% lighter per square foot than panels installed with mortar.

#### **Non-load Bearing**

Glass block panels are non-load bearing; adequate provisions must be made for support of construction above these panels. Panels are mortared at the sill, with jamb and head details designed to accommodate for building movement and lintel deflection. The compressive strength (for information purposes only) of all hollow glass block is 400 to 600 psi.; THICKSET® Series Glass Block is 2500 psi.; and VISTABRIK® Series is 80,000 psi.

#### **Detailed Drawings**

Structural elements illustrated on page and other 'detail' pages indicate general principles of construction. Member sizes should be determined by structural analysis to avoid excessive deflections. Maximum deflection shall not exceed L/600 for mortared panels and L/360 for silicone systems panels.

## **Thermal Expansion Coefficient**

The thermal expansion coefficient of glass block is 47 x 10-7(°F)

# **Building Information Modeling**

For further detailed information visit www.sevesglassblockinc.com to download BIM Object files.

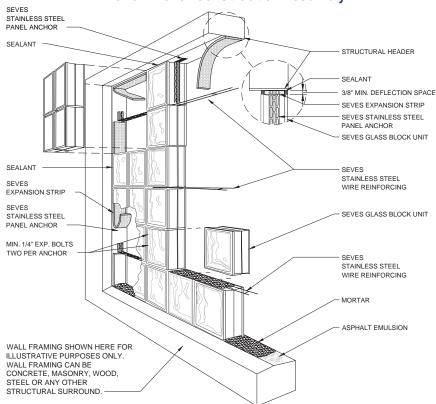
Materials shown other than glass block are for illustration purposes only as examples of typical construction details.

Details shown represent design intent. Other potential versions may be applicable.

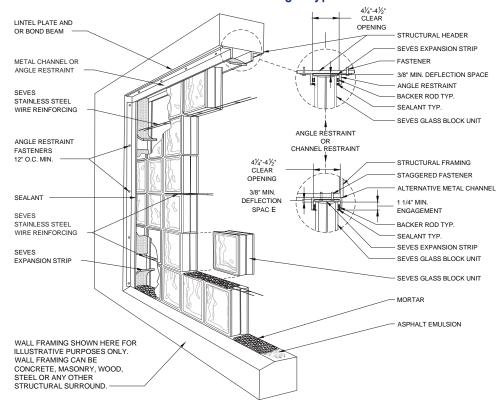
#### **Need Help?**

Contact Seves Technical Department for further consultation at 440-627-6257 or technicalus@sevesglassblock.com.

## **Panel Anchor Construction Assembly**



## Panel Construction Channel - Angle Type Restraint



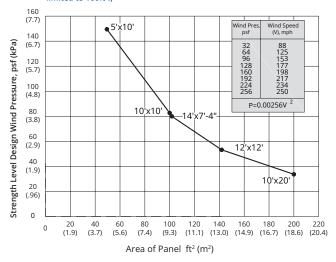
# **Design Information & Data**

	Maximum Panel Dimensions								
	PREMIERE™ SERIES THINLINE® SERIES VISTABRIK®								
	A (Sq. Ft.)	H (Ft.)	W (Ft.)	A (Sq. Ft.)	H (Ft.)	W (Ft.)	A (Sq. Ft.)	H (Ft.)	W (Ft.)
EXTERIOR*	144	20	25	100	10	15	100	10	10

#### **Mortar Mix and Estimating Table** An optimum mortar mix for installing Seves Glass Block **Portland Cement** 1 Part ½ Part 3.4 Parts 1.0 cubic foot 0.5 cubic foot 3.4 cubic feet

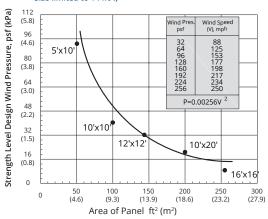
#### STRENGTH LEVEL WIND PRESSURE per ASCE 7 FOR **GLASS UNIT MASONRY**

(Based on 1.7 Safety Factor, 3" Vistabrik® Solid Glass Block. Panel Size limited to 100ft<sup>2</sup>.)



#### STRENGTH LEVEL WIND PRESSURE per ASCE 7 FOR **GLASS UNIT MASONRY**

(Based on 1.7 Safety Factor, 4" Premiere™ Series Glass Block. Panel Size limited to 144ft2.)

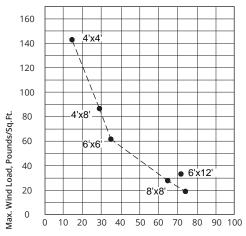


In 2010, ASCE 7 changed from Wind Loads to Strength Level Wind Pressure. The chart above now reflects this change. The new Safety Factor is now 1.7 for all masonry installed glass block panels. For further information, please contact Seves Technical Department at 440-672-6257 or email technicalUS@sevesglassblock.com

#### Number of Block for 100 Sq. Ft. Panel Block Sizes (Nominal) 6" 8" 12" 4" x 8" 6" x 8" Number of Block 450 400 225 100 300

#### WIND LOAD RESISTANCE - PROVANTAGE®

(Based on 2.0 Safety Factor, 4" Premiere™ Series Glass Block. Provantage® Silicone System Installation.)

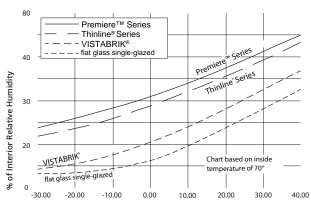


Area of Panel in Sq.Ft.

Maximum panel sizes: Exterior 50 sq/ft (framed on four sides) Interior 80 sq/ft (framed on at least two sides)

#### RESISTANCE TO SURFACE CONDENSATION

Outside Temperature in Degrees (F°)

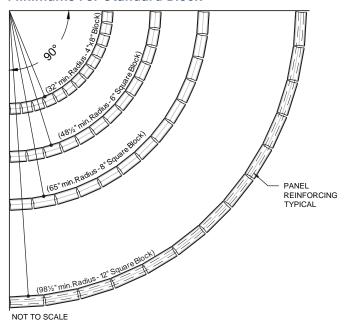


**Example**: At relative humidity of 40%, an outside temperature of approximately -3°F will cause condensation on Premiere™ Series Glass Block or approximately 3°F above zero on Thinline® Series Glass Block. Under the same conditions, condensation will form on a single-glazed flat glass window at 34°F above zero.

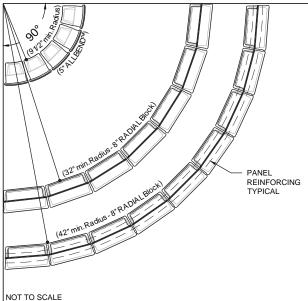
A = Area  $\,$  H = Height  $\,$  W = Width  $\,$ \* All exterior areas and dimensions are based on 32 psf design wind load with 1.7 safety factor.

# 4" Premiere™ Series Installation Layouts

## 4" Premiere™ Block Units, Inside Radius **Minimums For Standard Block**

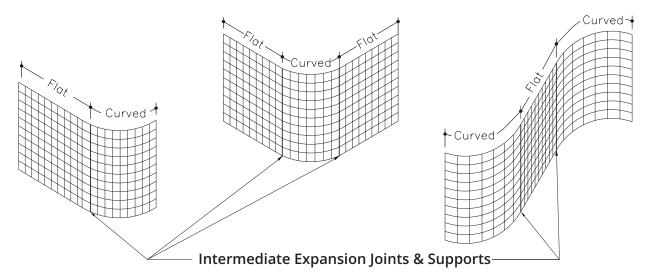


Minimums For Shaped Block	4" Premiere™ Block Units, Inside Radius
riminanis roi onapea biock	Minimums For Shaped Block



Block Sizes	Inside Radius Inches	Number of Block in a 90° Arc	Vertical Joint Thickness in Inches	
			Inside	Outside
4"x8"	32"	13	1/8"	9/16"
6"x6"	48 ½"	13	1/8"	1/2"
8"x8"	65"	13	1/8"	9/16"
12"x12"	98 1/2"	13	1/8"	9/16"

Block Sizes	Inside Radius Inches	Number of Block in a 90° Arc	Vertical Joint Thickness in Inches	
			Inside	Outside
ALLBEND™	9 ½"	5	1⁄4"	1⁄4"
RADIAL	32"	7	1⁄4"	1⁄4"
RADIAL	42"	9	5/16"	<sup>3</sup> / <sub>16</sub> "

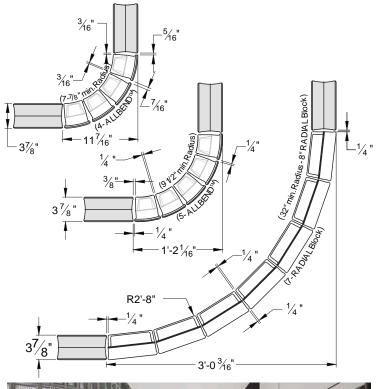


#### NOTES:

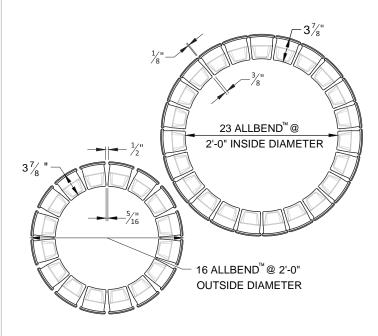
- 1. It is suggested that curved areas be separated from flat areas by intermediate expansion joints and supports, as indicated in these drawings.
- 2. When straight, ladder-type reinforcing is used on curved walls, the innermost parallel wire may be cut and/or bent periodically to accommodate the curvature of the wall.



# 4" Shaped Block, Minimum Radius for 90° Turn



# 4" AllBend™ Block, Minimum Radius for **Column Construction**







# Typical Construction Details

# Glossary of Terms (Detail Drawings)

BLDG - Building

CMU - Concrete Masonry Unit

(concrete block)

CONT STL - Continuous Steel

(used to reinforce wall)

ELEV - Elevation (side view of building)

GYP BD - Gypsum Board

HM - Hollow Metal (door frame)

INT - Interior

MAX HT - Maximum Height

(for Seves Glass Block panel 20ft/6m)

SILL - Bottom of Panel

CONC - Concrete

EIFS - Exterior Insulation Finishing System

EXT - Exterior

**HEAD** - Top of Panel

HORIZ - Horizontal

JAMB - Side of Panel

PLAN - View of Building from above, typically the floor

STL - Steel

WD - Wood

TYP - Typical (detail)

CLG - Ceiling

Materials shown other than glass block are for illustration purposes only as examples of typical construction details.

Details shown represent design intent. Other potential versions may be applicable

#### **Need Help?**

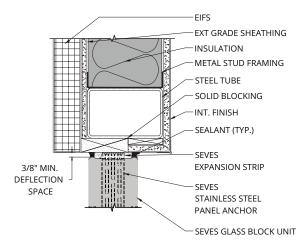
Contact Seves Technical Department for further consultation at 440-627-6257 or technicalus@sevesglassblock.com

BRICK VENEER

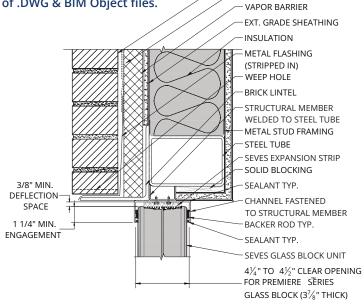
INSULATION BOARD

Visit www.sevesglassblockinc.com to download a wide variety of .DWG & BIM Object files.

# **Typical Head Details**

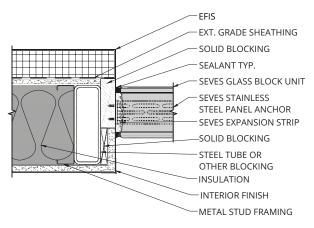


(PD-110) HEAD - Glass Block in Metal Stud Wall With Synthetic Plaster Finish

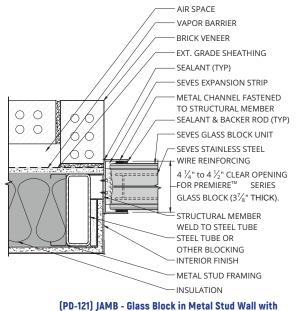


(PD-111) HEAD - Glass Block in Metal Stud Wall With Brick Veneer

# Typical Jamb Details

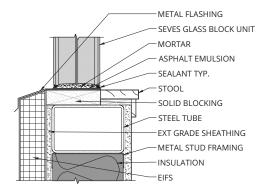


(PD-120) JAMB - Glass Block in Metal Stud Wall with Synthetic Plaster

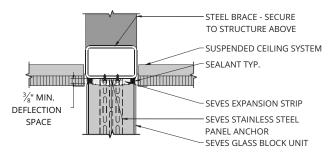


**Brick Veneer - Channel Constraint** 

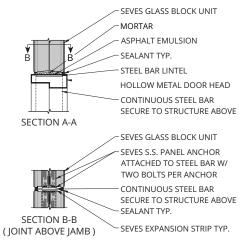
#### **Typical Sill Details**



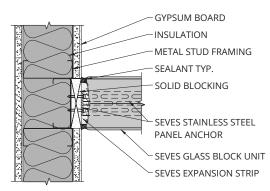
(PD-130) SILL - Glass Block in Metal Stud Wall with Synthetic Plaster Finish



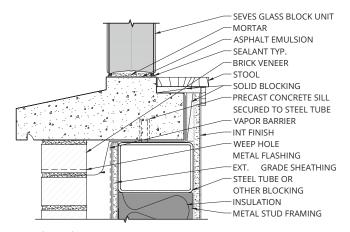
(PD-114) HEAD - Glass Block at Suspended Ceiling



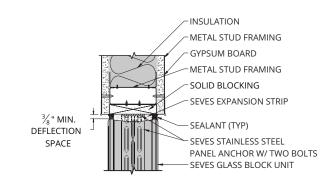
(PD-112) HEAD - Hollow Metal Door Frame at Glass Block



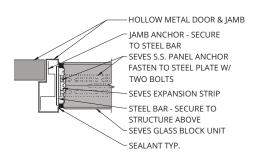
(PD-123) JAMB - Glass Block Perpendicular to Partition



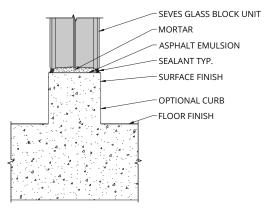
(PD-131) SILL - Glass Block in Metal Stud Wall with Brick Veneer



(PD-113) HEAD - Glass Block in Metal Stud Partition Wall



(PD-122) JAMB - Hollow Metal Door Frame at Glass Block



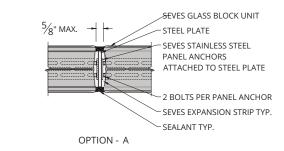
(PD-132) SILL - Glass Block at Concrete Floor Slat with Curb

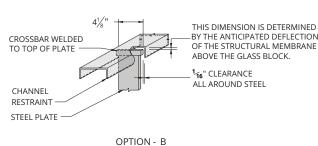
# Construction Details Cont.

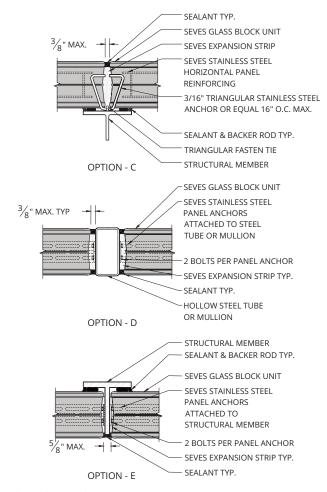
## Typical Vertical Support / Stiffener

NOTE: SEVES EXPANSION MATERIAL AND SEVES PANEL ANCHORS TO BE INSTALLED ON BOTH SIDES OF THE STEEL PLATE.

- \* STIFFENER SHOULD MOUNT TO SILL. ALLOW 1/16" CLEARANCE FOR STIFFENER AND CHANNEL, USE FOR DESIGN CONCEPT ONLY.
- \* PANELS WITH AN EXPANSION JOINT STIFFENER INCORPORATING A VERTICAL HIDDEN PLATE SHOULD BE LIMITED TO A MAXIMUM OF 10' (FT.) IN HEIGHT

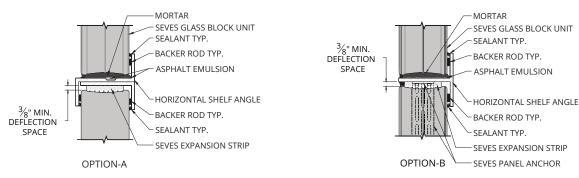




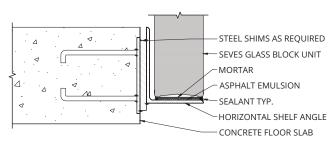


(PD-150) STIFFENERS - Intermediate Support in Multiple Horizontal Panels

## Typical Horizontal Support / Shelf Angle

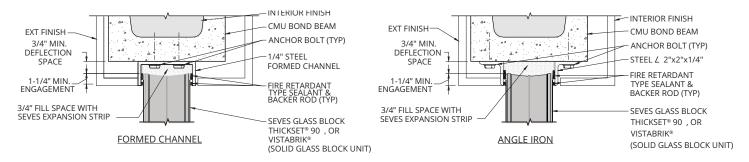


(PD-160) STIFFENERS - Intermediate Support in Multiple Horizontal Panels

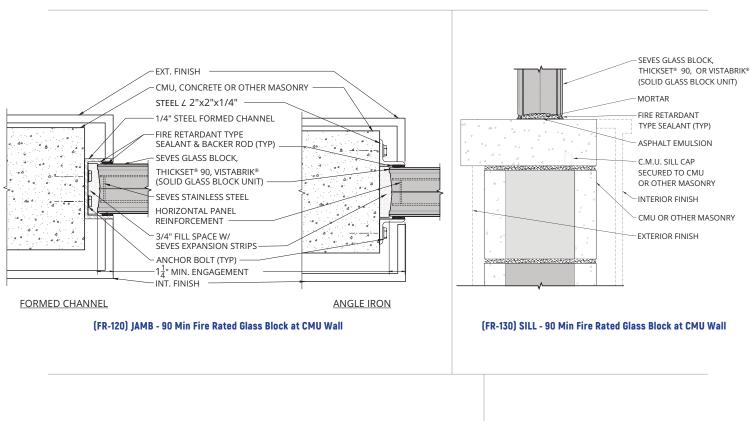


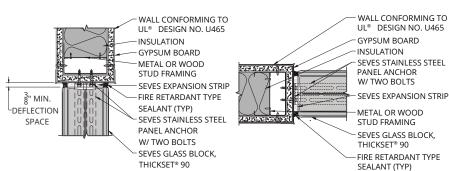
(PD-161) Intermediate Horizontal Support

#### Fire Rated Construction Details

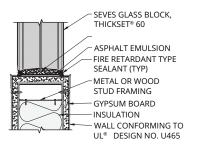


(FR-010) HEAD - 90 Min Fire Rated Glass Block at CMU/Bond Beam





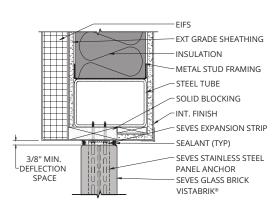
(FR-111) HEAD and JAMB - 45 & 60 Min Fire Rated Glass Block in Metal Stud Wall



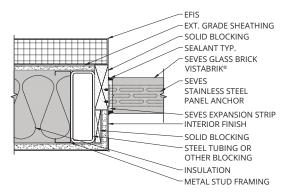
(FR-131) SILL - 45 & 60 Min Fire Rated **Glass Block in Metal Stud Wall** 

Visit www.sevesglassblockinc.com to download a wide variety of .DWG & BIM Object files.

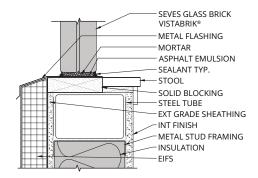
# VISTABRIK® Solid Glass Block Details



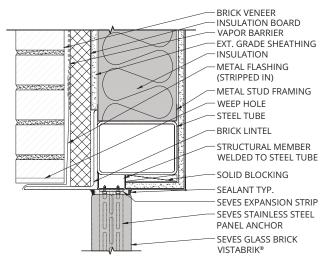
(VB-210) HEAD - VISTABRIK® in Metal Stud with Synthetic Plaster



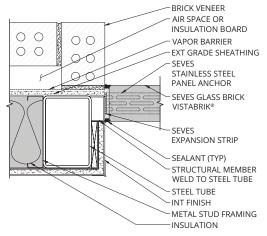
(VB-220) JAMB - VISTABRIK® in Metal Stud Wall with Synthetic Plaster Finish



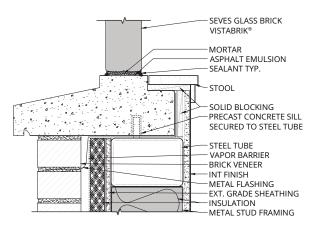
(VB-230) SILL - VISTABRIK® in Metal Stud Wall with Synthetic Plaster Finish



(VB-211) HEAD - VISTABRIK® in Metal Stud Wall with Brick Veneer



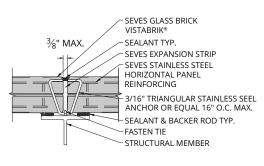
(VB-221) JAMB - VISTABRIK® in Metal Stud Wall with Brick Veneer



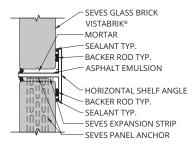
(VB-231) SILL - VISTABRIK® in Metal Stud Wall with Brick Veneer

#### TYPICAL VERTICAL SUPPORT

#### TYPICAL HORIZONTAL SUPPORT

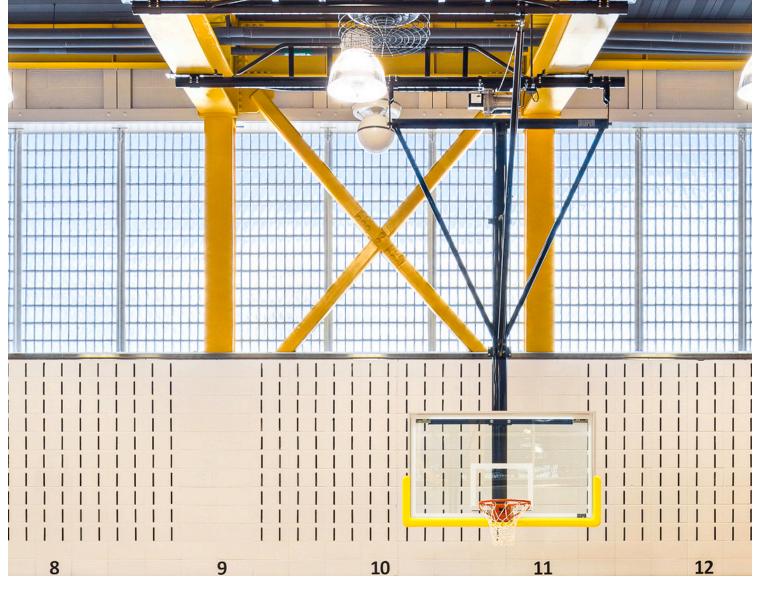


(VB-250) VISTABRIK® Triangle Anchor Intermediate **Support in Multiple Horizontal Panels** 

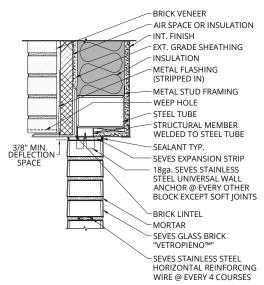


(VB-260) Horizontal Shelf Intermediate **Support in Multiple Vertical Panels** 

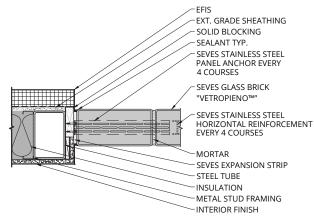
Visit www.sevesglassblockinc.com to download a wide variety of .DWG & BIM Object files.



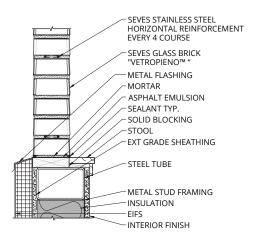
# Vetropieno™ Solid Glass Brick Details



(VP-311) HEAD - VETROPIENO™ in Metal **Stud Wall with Brick Veneer** 

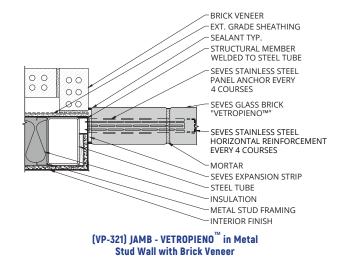


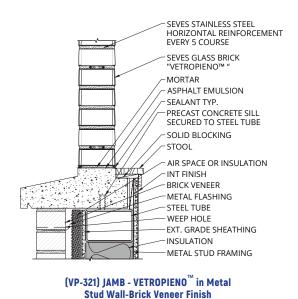
(VP-320) JAMB - VETROPIENO<sup>™</sup> in Metal Stud **Wall with Synthetic Plaster Finish** 



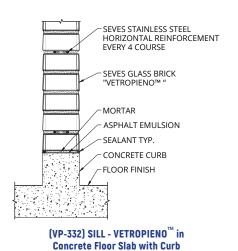
(VP-330) SILL - VETROPIENO™ in Metal Stud **Wall with Synthetic Plaster Finish** 

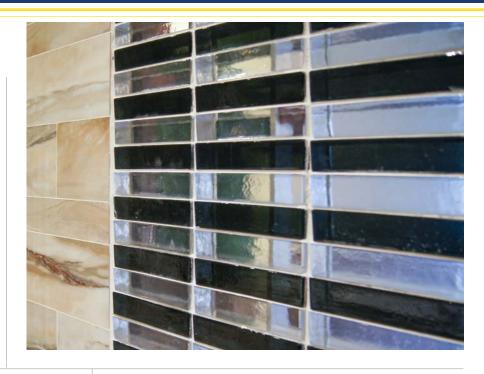


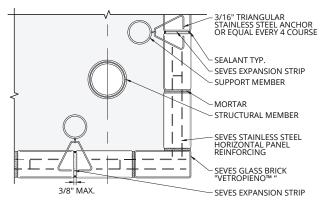




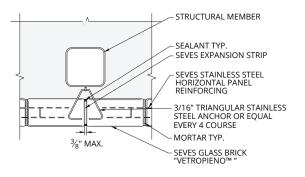
Visit www.sevesglassblockinc.com to download a wide variety of .DWG & BIM Object files.



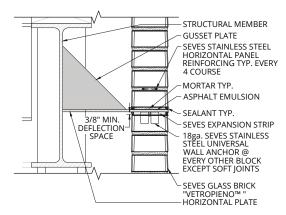




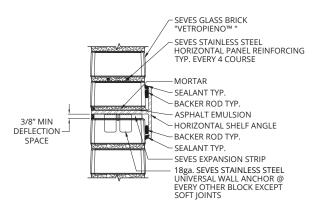
(VP-350) VERTICAL STIFFENER - VETROPIENO™ **Triangular Anchoring at Corner** 



(VP-351) VERTICAL STIFFENER - VETROPIENO™ **Intermediate Vertical Support** 



(VP-350) HORIZONTAL STIFFENER - VETROPIENO™ **Structural Horizontal Support in Multiple Panels** 



(VP-350) HORIZONTAL STIFFENER - VETROPIENO™ **Intermediate Horizontal Support in Multiple Vertical Panels** 

# **Specifications**

# Division 4 - Masonry Section 04 23 13 Glass Unit Masonry

#### **PART 1 - GENERAL**

#### 1.01 SUMMARY

A. Work included:

- 1. Hollow Glass block, or solid glass brick.
- 2. Mortar.
- 3. Integral joint reinforcing and anchors.
- 4. Expansion and Packing materials.
- 5. Sealant.
- B. Related Work:
- 1. Steel Channel or Aluminum framing

#### 1.02 SUBMITTALS

A. Product Data: For each type of product indicated. Include glass block, cementitious materials, and accessories.

- B. Shop Drawings: Show fabrication and installation details for glass unit masonry, including vertical and horizontal coursing, anchors, reinforcement, and expansion strips.
- C. Samples for Verification: Panels consisting of 8 full-size glass-block units with mortar and sealant
- 1. Provide Samples for each form, pattern, and color of glass block and color of joint material indicated or selected by the Engineer.

#### 1.03 REFERENCES

A. ASTM E283, Air Leakage. B. ASTM E330, Uniform Wind Load, Structural and Deflection. C. ASTM E547, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference. D. ASTM C920, Standard Specification for Elastomeric Joint Sealants.

- E. ASTM C144, Aggregate for
- F. ASTM C150, Portland Cement. G. ASTM C207, Hydrated Lime for
- H. ASTM C270, Mortar for Unit Masonry.
- I. ASTM A82, Cold Drawn Steel Wire
- J. ASTM A580, Stainless Steel Wire K. ASTM A167 Stainless Steel Perforated Panel Anchors

L. ASTM D1187, Type II Asphalt **Emulsion for Metal Surfaces** M. ASTM D1227, Type III Asphalt **Emulsion for Porous Surfaces** N. ASTM E2010 Fire Test for Window Assemblies UL 9 or NFPA

#### 1.04 QUALITY ASSURANCE

A. Source Limitations for Glass Block: Obtain glass block through one source from a single manufacturer.

- B. Source all accessory materials as provided and approved by Glass Block manufacturer C. Source Limitations for Accessory Materials: Obtain each cementitious material admixture and components through one source from a single manufacturer and each aggregate from one source or producer.
- D. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution.
- 1. Build mockup of typical panel, 48 by 48 inches in size.
- 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion. E. Use adequate numbers of
- skilled workmen are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.
- F. Installation Company must have successfully completed five (5) documented glass block projects of 1,000 square feet minimum in the past 5 years.

#### 1.05 DELIVERY, STORAGE, AND **HANDLING**

A. Store glass block in unopened cartons on elevated platforms, under cover, and in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied.

B. Store glass-block grid materials in unopened cartons in an enclosed, dry location.

C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp. D. Store aggregates where grading and other required characteristics can be maintained and contamination avoided. E. Store accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

#### 1.06 PROJECT CONDITIONS

A. Weather Limitations 1. Proceed with installation of glass unit masonry assemblies only when ambient and material temperatures are 40° F or higher. 2. Maintain temperature in installation areas at 40° F or above for 48 hours after installing.

#### 1.07 SEQUENCING AND **SCHEDULING**

A. Sequence and coordinate completion of glass unit masonry assemblies so sealants can be installed immediately after mortar has attained final set.

#### **PART 2 - PRODUCTS**

#### 2.01 AVAILABLE **MANUFACTURERS**

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Seves Glass Block Inc. 10576 Broadview Rd, Cleveland, Ohio 44147 440-627-6257 or 877-SEVES11 (877-738-3711)

www.sevesglassblockinc.com inquiry@sevesglassblock.com 2. Approved equal.

- B. GLASS UNITS
- 1. Glass Block Units \_\_\_ X \_\_\_ X \_\_\_ inch or mm.
- with 45, 60, 90 2. \_\_\_ X \_\_\_ X \_ minute listed UL Fire Ratings.
- 3. Colors (Clear or Colors)
- 4. Pattern
- 5. Edge Coating White Latex base or PVB.

#### 2.02 MORTAR MATERIALS

A. Portland Cement: ASTM C 150, Type I or Type II, natural color, white, or a blend to produce mortar color indicated.

- 1. Where joints are indicated to be raked out and pointed, gray cement may be used for setting
- B. Hydrated Lime: ASTM C 207, Type S.
- C. Portland Cement-Lime Mix: Packaged blend of Portland cement complying with ASTM C 150, Type I or Type III, and hydrated lime complying with ASTM C 207, Type S.
- D. Shall be prepared according to ASTM C270 for Type S Mortar. Mortar to have 1 part Portland Cement (Type 1), ½ part lime and 2½ to 3 parts of fine sand passing No. 20 sieve and free of iron compounds to avoid stains. Use white Portland Cement and silica sand for white joints. Mix mortar drier than normal and only an amount that will be used in 30-60 min. Glass block will not absorb water the same as brick. Do not use re-tempered mortar. 1. Portland Cement: Type I in accordance with ASTM
- recommended) Color: 2. Lime: Shall be a dolomitic pressure-hydrated lime, special hydrate, Type S, in accordance with ASTM C207.

omitted. (Masonry Cement is not

C150. If a waterproof Portland

Cement is used, the integral

type waterproofer shall be

- 3. Sand: A clean, white quartzite or silica type, essentially free of iron compounds, in accordance with ASTM C144, not less than 100% passing a No. 8 sieve.
- 4. Integral Type Water-repellent. Stearate type by Sonneborn Building Products (Hydrocide powder, 1-800-243-6739), or equal. Add hydrocide powder to dry mortar mix. Do not add powder to wet mortar mix.
- a. Lehigh Cement,
- b. PEC MIX,
- c. Approved equal.
- e. Water: Potable.

#### 2.03 GLASS UNIT MASONRY **ACCESSORIES**

A. Panel Reinforcement: Ladder-

type units, butt welded, not lapped and welded; complying with ASTM A 951 in straight lengths of not less than 10 feet, and as follows:

- 1. Stainless Steel wire.
- 2. Wire Size: W1.7 or 0.148-inch diameter.
- 3. Width: 1% inches.
- 4. Spacing of Cross Rods: Not more than 16 inches apart. B. Fasteners, General: Unless otherwise indicated, provide Type 304 or Type 316 stainless-steel fasteners at exterior walls and zinc-plated fasteners with coating
- complying with ASTM B 633, Class Fe/Zn 5, at interior walls. Select fasteners for type, grade, and class required.
- C. Asphalt Emulsion: Cold-applied asphalt emulsion complying with ASTM D 1187 or ASTM D 1227.
- D. Sealants: Manufacturer's standard chemically curing, elastomeric sealants that comply with applicable requirements in Section 079200 "Joint Sealants."
- 1. Single-component, non-sag urethane sealant.
- 2. Provide interior sealants that have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- E. Sealant Accessories: Provide sealant accessories, including primers, bond-breaker tape, and cylindrical sealant backing, that comply with applicable requirements in Section 079200 "Joint Sealants", and as follows: F. Expansion Strips / Compressible Filler: % inch by \_ inches polyethylene foam or glass
- G. Panel Anchors: 20 gauge X 1%" X 16" stainless steel with staggered perforations. H. (Optional) Weld-On Rod Anchor: Stainless Steel Type 316: ¼ inch Wire Diameter: ¾ inch Offset, 4 inch Vertical Adjustment and \_\_\_\_inches overall Length. Triangular Anchors: Stainless Steel Triangular wire tie type. 3/16 inch, lengths as indicated on the Drawings.

#### **PART 3 - EXECUTION**

#### 3.01 Preparation

A. Verify that (channels), (panel anchors) have been provided at head and jambs for the purpose of providing panel support within the opening.

B. Mix all mortar components to a consistency that is drier than mortar for ordinary masonry. Retempering the mortar after it has taken its initial set shall not be permitted. Do not use antifreeze compounds or accelerators. C. Freshly mixed mortar may create skin irritation. Avoid direct contact where possible and wash exposed skin areas promptly with water, if any mortar gets into the eyes, rinse immediately with water and get prompt medical attention.

#### 3.02 Installation

A. Cover sill area with a heavy coat of asphalt emulsion. Allow emulsion to cure at least 2 hours before placing mortar. B. Where panel anchors are used at jambs and heads in lieu of channel or chase surrounds, install panel anchors in the same joints (16 inches O.C. maximum starting after fist course) where panel reinforcing will be laid. Panel anchors are to be embedded a minimum of 12 inches into the mortar joints. C. Place or adhere expansion strips to jambs and head. Make certain expansion strip extends to sill and covers leg of panel anchor that is attached to jambs and head. D. Set a full mortar bed joint,

applied to sill.

E. Set lower course of block. Maintain a uniform joint width of ¼ or ¾ inch plus or minus ¼ inch. All mortar joints must be full and not furrowed. Steel tools must not be used to tap block into position. (Place a rubber crutch tip on end of trowel to tap block into position.) Do not realign, tap or otherwise move block after initial placement. For VISTABRIK® Solid Glass Block units, typical mortar joint is ¾ inch. Special VISTABRIK® spacers that provide a %-inchthick mortar joint are available.

F. Install SS panel reinforcing every 16 inches O.C. maximum (starting after the first course) in the horizontal mortar joints. Run reinforcing continuously from end to end of panels. Lap reinforcing not less than 6 inches whenever it is necessary to use more than one length. For VISTABRIK® Solid Glass Block, use 1%" inch wide reinforcing (same as Thinline® Series glass block). Do not bridge expansion joints with reinforcing. Install reinforcing as follows:

- · Place lower half of mortar in bed joint. Do not furrow.
- Press panel reinforcing into place.
- Cover panel reinforcing with upper half of mortar bed and trowel smooth. Do not furrow. G. Place full mortar bed for joints not requiring panel reinforcingdo not furrow. Maintain uniform joint width.

H. Set succeeding courses of block. Spaces at head of panel and jambs must remain free of mortar for caulking with sealant. I. Use only wooden or rubber tipped tools when tapping glass block into place.

J. Strike joints smooth while mortar is still plastic and before final set. Remove surplus mortar from faces of glass block and wipe dry. (See Sect on 3.03). Tool joints smooth and concave before mortar takes final set. At this time, remove and clean out all excess mortar from jambs, head and other locations.

K. After final mortar set (approximately 24 hours), install packing tightly between glass block panel, jamb, and head locations. Leave space for sealant. L. Apply sealant evenly to the full depth of recesses as indicated on the drawings and in accordance with the manufacturers' published application manual and instructions.

M. All exterior glass block panels shall be well sealed at all head and jamb locations to prevent water entry.

#### 3.03 Cleaning

A. Remove surplus mortar from the faces of the glass block at the time joints are struck or tooled. Mortar should be removed while

it is still plastic using a clean, wet sponge, or an ordinary household scrub brush with stiff bristles. B. Do not use harsh cleaners, acids (of any strength), abrasives, or alkaline materials while cleaning glass block. Never use a wire brush to remove mortar from glass block surfaces. C. Final mortar removal is accomplished with a clean, wet sponge, or cloth. Rinse sponge or cloth frequently in clean water to remove abrasive particles that could scratch glass surfaces. Allow any remaining film on the block to dry to a powder.

D. After all sealants, caulking,

etc., have been applied, remove

excess caulking materials with commercial solvents such as xylene, toluene, mineral spirits, or naphtha and follow with normal wash and rinse. Be careful not to damage caulking by overgenerous application of strong solvents. Comply with solvent manufacturers' printed directions on label for toxicity and flammability warnings. E. Final cleaning of glass block panels is accomplished after they are completely installed. Wait until panels are not exposed to direct sunlight then start at the top of the panel and wash with generous amounts of clean water. Dry all water from the glass block surface. Change cloth frequently to eliminate dried mortar particles or aggregate that could scratch the glass surface. To remove the dry powder from the glass surfaces, use a clean, dry, soft cloth. For stubborn or hard to remove powder or stains, the use of an "extra fine" steel wool (grades 000 or 0000) is suggested. Try this first in an unobtrusive

#### 3.04 External sealer

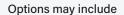
area.

A. Apply External Type Waterproofer: Water based silane sealer type by Sonneborn **Building Products (HYDROZO** ENVIROSEAL™ 40, 1-800-243-6739).

# **Basic Line**

# **Clear Glass**

The Basic Line is ideal for applications where glass block are chosen mainly for their prime function in design - the passage of light. With over 25+ patterns to choose from, this line offers the most diversity of any collection in the Seves Lines. To complete this line, we offer additional sizes, shapes and finishing units, and an extensive array of soft and vibrant color options.





**Energy Saving** 



Solar Reflective



Self Cleaning



Frosted Block

#### 19cm x 19cm x 8cm | 7.5" x 7.5" x 3"







**Alpha** 



Clearview



Maya



**Cross large** 



**Cross Small** 



**Cuneis** 



Deco



Digona



Inca



**Light Directing** 



**Light Diffusing** 



Lozenge



**Marina** 



Midarc



**Opal Plain** 



**Optical** 



**Paralline** 



**Pyramid** 



Samba



Savona



**Sponge** 



Stella



Wave



Sona

#### 19cm x 9cm x 8cm | 7.5" x 3.5" x 3".



Clearview



Wave



**Arctic** 

# More Shapes & Sizes

By adding additional sizes, we help extend our customers vision. Intermix patterns and sizes using modularity to create one-of-a-kind walls and windows. Running bond designs with glass block is now available.

### With Seves, the ordinary becomes extraordinary.



**Cortina** 19cm x 19cm x 5cm (7.5" x 7.5" x 2")



Wave 19cm x 19cm x 5cm (7.5" x 7.5" x 2")



Wave 24cm x 24cm x 8cm (9.5" x 9.5" x 3")



Clearview 24cm x 24cm x 8cm (9.5" x 9.5" x 3")



**Cross Small** 24cm x 24cm x 8cm (9.5" x 9.5" x 3")



Wave 11cm x 11cm x 8cm (4.5" x 4.5" x 3")



Clearview 11cm x 11cm x 8cm (4.5" x 4.5" x 3")



Clearview 11cm x 24cm x 8cm (4.5" x 9.5" x 3")



Wave 11cm x 24cm x 8cm (4.5" x 9.5" x 3")



# **Basic Line**

## **Special Shapes & Finishing Units**

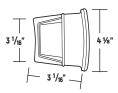
Shapes such as Corners (90°) and Allbend™ (22.5°) assist architects/designers in creating movement with glass block (corners, radius, and serpentine walls, etc.). Finishing Units, like the Linear End and Double-End™, are used to terminate walls with like materials and patterns.

#### Allbend™ - Wave / Arctic

### 8cm x 19cm x 8cm (3" x 7.5" x 3")

With its 22.5° design, this block is a brilliant way to create smooth graceful curves and columns with a consistency of mortar joints.



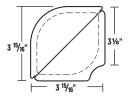


#### 90° Radius Corner - Wave / Arctic

#### 8cm x 19cm x 8cm (3" x 7.5" x 3")

This 90° Radius edged corner block results in a gentle rounded continuous glass face.



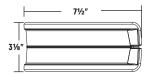


#### Linear End - Wave / Arctic

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Rounded finishing block ideal for vertical and horizontal applications of panels, walls, and dividers.



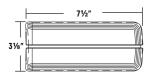


#### Double-End™ Block - Wave / Arctic

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Curved block intended to transition EndBlock™ used in horizontal and vertical applications, or for step down designs. (Used with 8x8x4 EndBlock™)



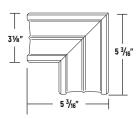


## 90° Sharp Corner - Basic - Wave / Arctic / Clearview

#### 13cm x 19cm x 8cm (5-3/16" x 7.5" x 3")

The 90° 'Sharp' edged corner block is a design alternative to the 90° radius edged corner block. Intended for interior use only. Limited availability.





## **Janus Collection**

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

This multifaceted glass block is manufactured in 3 distinctive versions. This clear glass is designed with 2 different patterns on each face of the block. The end result creates 2 distinct light distributions, a unique style like no other block and high levels of privacy.



## Cloudy

One face made with the Wave pattern and the opposite face with Clearview.



**Storty** 

One face made with the Optical pattern and the opposite face with Wave.



Frozen

One face made with the Arctic pattern and the opposite face with Wave.

# Basic Line Physical & Design Data

Glass Block	Actual Block Size <sup>1</sup>	Weight of glass block (lb)	Approx- imate Installed Weight (lb/ft²)	Number pieces/ sq. ft.	Heat Trans- mission <sup>2</sup> U-Value (BTU/hr ft2 °F)	Thermal Resist- ance <sup>2</sup> R-value (hr ft2 °F/ BTU)	Visible Light Trans- mission <sup>3</sup> (%)	Shading Coefficient <sup>4</sup>	Sound transmission S.T.C. (dB)	Solar Heat Gain Coefficient <sup>s</sup> (%)	Fire rating
BASIC LINE											
1919/8 Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1909/8 Wave	7½" x 3 %6" x 3%"	3.1	20.1	4.9	0.56	1.79	79	88.5	41	77	45
2424/8 Wave	9 <sup>7</sup> /16" x 9 <sup>7</sup> /16" x 31/8"	8.8	16.2	15	0.53	1.89	78	88.5	36	77	45
2411/8 Wave	9 <sup>7</sup> /16" x 4½" x 3½"	4.9	19.1	3.3	0.55	1.82	78	87.4	37	76	45
1111/8 Wave	4½" x 4½" x 3½"	2.4	20.5	7.2	0.49	2.04	78	85.1	42	74	45
1919/5 Wave	7½" x 7½" x 2"	3.6	11.3	2.3	0.51	1.96	77	90.8	34	79	N/A
1919/8 Arctic	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1909/8 Arctic	7½" x 3 <sup>9</sup> h6" x 3½"	3.1	20.1	4.9	0.56	1.79	79	88.5	41	77	45
1919/8 Clearview	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1909/8 Clearview	7½" x 3 <sup>9</sup> /16" x 3%"	3.1	20.1	4.9	0.56	1.79	79	88.5	41	77	45
2424/8 Clearview	9 <sup>7</sup> /16" x 9 <sup>7</sup> /16" x 31/8"	8.8	16.2	15	0.53	1.89	78	88.5	36	77	45
2411/8 Clearview	9 <sup>7</sup> /16" x 4½" x 3½"	4.9	19.1	3.3	0.55	1.82	78	87.4	37	76	45
1111/8 Clearview	4½" x 4½" x 3½"	2.4	20.5	7.2	0.49	2.04	78	85.1	42	74	45
1919/8 Alpha	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/5 Cortina	7½" x 7½" x 2"	3.6	11.3	2.3	0.51	1.96	77	90.8	34	79	N/A
1919/8 Cross Large	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Cross Small	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Cuneis	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Deco	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Digona	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Inca	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Light Directing	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	61	90.8	37	79	45
1919/8 Light Diffusing	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	63	90.8	37	79	45
1919/8 Lozenge	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Marina	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Maya	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 (Midarc)	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Opal Plain	7½" x 7½" x 3½"	5.1	15.8	2.4			19				N/A
1919/8 Optical	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Paralline	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Pyramid	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Samba	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Savona	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Sona	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Sponge	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Stella	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	80	90.8	37	79	45
1919/8 Frozen	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	79	88.5	37	77	45
1919/8 Cloudy	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	60	80.5	37	70	45
1919/8 Shorty	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	79	88.5	37	79	45

# **Basic Line**

Seves has extended the Basic Line to include an array of soft colored glass and bold injected colors. This gives architects and designers more opportunities to incorporate Seves Glass Block in their project's vision.

# Soft Shades (colored glass)

A selection of 7 gentle colors in the 'wave pattern'. These delicate soft colors can stand alone in your project or can be mixed with our standard wave pattern to add touches of color to your design. 19cm x 19cm x 8cm | 7.5" x 7.5" x 3"- Excellent for interior and exterior applications



# **Color Finishing Units**



90° Sharp Corner available by special order. Limited Availability / Minimum Quantities

# **Brilly (injected color)**

The Brilly range is available in 9 bright / bold colors in the 'wave pattern'. Make a strong color statement with your design or mix with our standard wave pattern for a hint of the dramatic 19cm x 19cm x 8cm | 7.5" x 7.5" x 3" (Recommended for interior applications, only)



# Basic Line Physical & Design Data

Glass Block	Actual Block Size¹	Weight of glass block (lb)	Approx- imate Installed Weight (lb/ft²)	Number pieces/ sq. ft.	Heat Transmission² U-Value (BTU/hr ft2 °F)	Thermal Resistance² R-value (hr ft2 °F/BTU)	Visible Light Transmission³ (%)	Shading Coef- ficient <sup>4</sup>	transmis-	Solar Heat Gain Co- efficient <sup>5</sup> (%)	Fire rating
				SOFT SHADE	S (COLORED GLA	SS)					
1919/8 Azur Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	75	87.4	37	76	45
1919/8 Blue Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	26	74.7	37	65	45
1919/8 Brown Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	58	81.6	37	71	45
1919/8 Green Wave	7½" x 7½" x 31⁄8"	5.1	15.8	2.4	0.53	1.89	77	79.3	37	69	45
1919/8 Gray Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	53	79.3	37	69	45
1919/8 Pink Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	72	87.4	37	76	45
1919/8 Turquoise Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	65	86.2	37	75	45
				BRILLY (I	NJECTED COLOR)						
1919/8 Brilly Yellow Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	61		37		N/A
1919/8 Brilly Orange Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	38		37		N/A
1919/8 Brilly Red Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	13		37		N/A
1919/8 Brilly Blue Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	22		37		N/A
1919/8 Brilly Bronze Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	29		37		N/A
1919/8 Brilly Emerald Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	19		37		N/A
1919/8 Brilly Ruby Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	16		37		N/A
1919/8 Brilly Violet Wave	7½" x 7½" x 3%"	5.1	15.8	2.4	0.53	1.89	14		37		N/A
1919/8 Brilly Turquoise Wave	7½" x 7½" x 3½"	5.1	15.8	2.4	0.53	1.89	22		37		N/A

<sup>4</sup> Light Transmission/Shading Coefficient-Estimated figures based on accumulated data
5 Shading Coefficient-Based on 8".sq. unit; ratio of heat gain through glass block panels vs. that through a single light of double-strength sheet glass under specific conditions.





<sup>&</sup>lt;sup>1</sup> Size-Block are manufactured to a 1/32" (1mm tolerance) <sup>2</sup> Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.

<sup>&</sup>lt;sup>3</sup> Light Transmission-Values +/-5%

# **Design Line**

The Design Line was developed with the contributions and experience of leading figures in contemporary architecture and design who shared our desire to create a new concept of glass block inspired by the principles of creativity, style, functionality, and innovation. These innovative technologies, when applied to the manufacturing of the standard module, led to the creation of the 'winged' Pegasus glass block. This unique block design allows for a narrow sight line by reducing the mortar joint size thus creating an uninterrupted continuity of

Options may include



**Energy Saving** 



Solar Reflective



Self Cleaning



Frosted Block

## Pegasus Q19

#### 19cm x 19cm x 8cm | 7.5" x 7.5" x 3"

Pegasus is a new generation of glass block that features the NEW winged design technology. This unique block design reduces the spacing between the block, allowing for a more uninterrupted glass surface without highly visible mortar joints. The Pegasus block is available in the wave and smooth patterns, in clear glass, and in an assortment of soft pastel colors for both interior and exterior applications.



Neutro - Wave



Neutro - Smooth



Siena - Wave



Siena - Smooth



Nordica - Wave



Nordica - Smooth





# Pegasus R09

### 19cm x 19cm x 8cm | 7.5" x 3.5" x 3"

Half the size of the Q19, the Pegasus R09 can stand on its own or be used in conjunction with the Pegasus Q19 in custom designs. Create distinctive projects while maintaining the look of modularity for both interior and exterior applications.



Blue - Wave



Nordica - Wave



Siena - Wave



Neutro - Wave



Neutro - Smooth





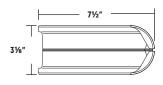
# **Pegasus Special Shapes & Finishing Units**

#### **Terminal Lineare**

### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Rounded finishing block ideal for vertical and horizontal applications of panels, walls, and dividers.





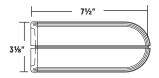
#### **Terminal Curvo**

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Curved block intended to transition or connect the Terminal Lineare used in horizontal and vertical applications, or for step down designs.







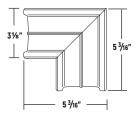
### 90° Sharp Corner - Pegasus

#### 13cm x 19cm x 8cm (5-3/16" x 7.5" x 3")

The 90° 'Sharp' edged corner block is a design alternative to the 90° radius edged corner block. Intended for interior use only. Limited availability.







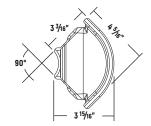
### **Angulare Corner**

#### 10cm x 19cm x 8cm (4" x 7.5" x 3")

This 90° Radius edged corner block results in a gentle, rounded, continuous glass face.







# Pegasus Shapes & Finishing Units Product Availability

PEGASUS	Neutro		В	lue	Sie	ena	Nordica		
	Wave	Smooth	Wave	Smooth	Wave	Smooth	Wave	Smooth	
Q19	•	<b>*</b>	•	<b>*</b>	•	•	•	•	
R09	<b>*</b>	•	•		*		•		
Angulare Corner	<b>*</b>	•							
90° Sharp Corner	<b>*</b>	<b>*</b>	•	<b>*</b>	•	•	•	•	
Terminal Lineare	<b>*</b>	•	•		•		•		
Terminal Curvo	<b>*</b>	<b>*</b>	•		•		•		
Q19 1S	<b>*</b>	•	•	•	•	•	•	•	
Q19 2S	<b>*</b>	<b>*</b>	•	<b>*</b>	•	•	•	•	
R09 1S	<b>*</b>	•	•		•		•		
R09 2S	<b>*</b>	<b>*</b>	•		•		•		
Angular Corner 2S	<b>*</b>	•							
90° Sharp Corner 1S	<b>*</b>	<b>*</b>	•	<b>*</b>	•	•	•	•	
90° Sharp Corner 2S	*	•	•	•	•	•	•	•	
Terminal Lineare 2S	<b>*</b>	•	•		•		*		
Terminal Curvo 2S	<b>*</b>	•	•		•		•		

# **Design Line**

# Pegasus Physical & Design Data

Glass Block	Actual Block Size¹	Weight of glass block (lb)	Approximate Installed Weight (lb/ ft²)	Number pieces/ sq. ft.	Heat Transmission² U-Value (BTU/hr ft2 °F)	Thermal Resistance <sup>2</sup> R-value (hr ft2 °F/ BTU)	Visible Light Transmission³ (%)	Shading Coeffi- cient <sup>4</sup>	Sound transmission S.T.C. (dB)	Solar Heat Gain Coeffi- cient <sup>5</sup> (%)	Fire rating
Wave											
Neutro Q19 O	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	80	89.7	39	78	45
Neutro R09 O	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79	80	92.0	41	80	45
Neutro Q19 O 1S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	70	81.6	39	71	45
Neutro Q19 O 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	61	78.2	39	68	45
Neutro R09 O 1S	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79	78	90.8	41	79	45
Neutro R09 O 2S	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79	76	89.7	41	78	45
Smooth											
Neutro Q19 T	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	80	89.7	39	78	45
Neutro R09 T	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79	80	92.0	41	80	45
Neutro Q19 T 1S	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	70	81.6	39	71	45
Neutro Q19 T 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	61	78.2	39	68	45
Neutro R09 T 1S	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79	78	90.8	41	79	45
Neutro R09 T 2S	7½" x 3 <sup>11</sup> /16" x 3%"	2.9	16.6	4.9	0.56	1.79	76	89.7	41	78	45
Wave											
Blue Q19 O	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	23	72.4	39	63	45
Blue R09 O	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Blue Q19 O 1S	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	20	66.7	39	58	45
Blue Q19 O 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	17	64.4	39	56	45
Blue R09 O 1S	7½" x 3 <sup>11</sup> /16" x 3%"	2.9	16.6	4.9	0.56	1.79			41		45
Blue R09 O S2S	7½" x 3 ¹¹/₁6" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Smooth											
Blue Q19 T	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	23	72.4	39	63	45
Blue Q19 T 1S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	20	66.7	39	58	45
Blue Q19 T 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	17	64.4	39	56	45
Wave											
Siena Q19 O	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	55	79.3	39	69	45
Siena R09 O	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Siena Q19 O 1S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	45	70.1	39	61	45
Siena Q19 O 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	37	69.0	39	60	45
Siena R09 O 1S	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Siena R09 O 2S	7½" x 3 ¹¹/₁6" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Smooth											
Siena Q19 T	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	55	79.3	39	69	45
Siena Q19 T 1S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	45	70.1	39	61	45
Siena Q19 T 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	37	69.0	39	60	45
Wave											
Nordica Q19 O	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	50	77.0	39	67	45
Nordica R09 O	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79			41		45
Nordica Q19 O 1S	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	41	67.8	39	59	45
Nordica Q19 O 2S	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	33	65.5	39	57	45
Nordica R09 O 1S	7½" x 3 <sup>11</sup> /16" x 3½"	2.9	16.6	4.9	0.56	1.79					45
Nordica R09 O 2S	7½" x 3 ¹¹/₁6" x 3½"	2.9	16.6	4.9	0.56	1.79					45
Smooth											
Nordica Q19 T	7½" x 7½" x 3%"	5.1	14.5	2.4	0.46	2.17	50	77.0	39	67	45
Nordica Q19 T 1S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	41	67.8	39	59	45
Nordica Q19 T 2S	7½" x 7½" x 3½"	5.1	14.5	2.4	0.46	2.17	33	65.5	39	57	45
4.5 . 25		J.,									

Frosted Finish: 1S - One Sided | 2S - Two Sided

# **Pegasus Metalized**

Pegasus Metalized is an exclusive and innovative glass block by Seves Glass Block. The unique metalized finish on the block's outer edge creates a mirroring or reflective effect that reduces the perception of 'gaps' between the block and renders the glass surface even more brilliant and intriguing. The Pegasus Metalized Collection is available in clear glass and a range of radiant and diverse colors, ideal for striking interior and exterior designs.

# Pegasus Q19 - Metalized

#### 19cm x 19cm x 8cm | 7.5" x 7.5" x 3"

This block is a combination of two exclusive Seves technologies: Pegasus 'winged' design and a metalized finish applied on the perimeter edge of the block. The mirrored effect of the metalized surface adds a sparkle or brilliance to the block while maintaining a near continuous glass wall effect. Available in clear and colored glass for both interior and exterior applications.



# Pegasus R09 - Metalized

#### 19cm x 9cm x 8cm | 7.5" x 3.5" x 3"

The R09 is a half-block for the Pegasus Q19. It incorporates the same 'winged' design and metalized finish as the larger Q19 Pegasus. Use in both interior and exterior applications, this block is available in clear and soft colors.



Wave



Wave



Wave

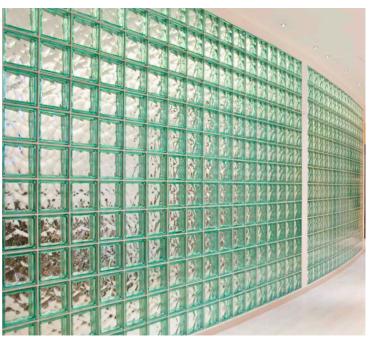


Wave



Smooth





# **Design Line**

# Pegasus Metalized Special Shapes & Finishing Units

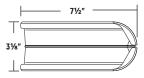
Special Shapes in the form of 90° Sharp and Radius Corners combined with Linear and Curvo finishing units give glass block the finishing touch architects and designers deserve and demand.

#### **Terminal Lineare**

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Rounded finishing block ideal for vertical and horizontal applications of panels, walls, and dividers.



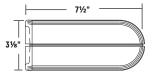


#### **Terminal Curvo**

#### 19cm x 19cm x 8cm (7.5" x 7.5" x 3")

Curved block intended to transition or connect the Terminal Lineare used in horizontal and vertical applications, or for step



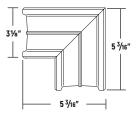


### 90° Sharp Corner - Pegasus Metalized

#### 13cm x 19cm x 8cm (5-3/16" x 7.5" x 3")

The 90° 'Sharp' edged corner block is a design alternative to the 90° radius edged corner block. Intended for interior use only. Limited availability.



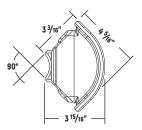


### **Angulare Corner**

#### 10cm x 19cm x 8cm (4" x 7.5" x 3")

This 90° Radius edged corner block results in a gentle rounded continuous glass face.





# Pegasus Metalized Shapes & Finishing Units Product Availability

Pegasus Metalized	Neutro		Blue		Siena		Nordica	
	Wave	Smooth	Wave	Smooth	Wave	Smooth	Wave	Smooth
Q19	•	•	•		•		•	
R09	•	•	•		•		•	
Angulare Corner	•	•						
90° Sharp Corner	•	•	•		•		•	
Terminal Lineare	•	•	•		•		•	
Terminal Curvo	*	•	*		•		•	

# Pegasus Q19 - New Color Collection

The New Color Collection provides endless ways to explore interior design through color. Vibrant injected colors, wave pattern glass design and metalized edges: A collection created to define interior spaces with the power of its bold tones and light effects. Recommended for interior use only. Special order/Limited Availability.





## **Doric**

Inspired by the ancient Greek columns of the same name. Doric unites classic and modern styles into one exclusive design element. Ideal for creating dramatic linear patterns and optical illusions that play upon the depths of space, Doric is available in transparent, metalized, and frosted finish. The Doric Pattern can be installed either vertically or horizontally. When installed vertically a uniformed column effect is created, whereas in horizontal applications it adds texture and visual interest.



#### (Q19) 19cm x 19cm x 8cm | 7.5"x 7.5" x 3"





(Q30) 30cm x 30cm x 8cm | 11.75"x 11.75" x 3"





**Transparent** 

# **Design Line**

# Pegasus Q19 - Mendini Collection

There are 16 colors in this range, from the boldest and sharpest ones to a striking black or white. These 'Pegasus' winged smooth pattern glass block are injected with vibrant colors, offering a new exciting design element for interiors. The Mendini Collection is also made with a metalized coating, which is a mirror finish along the sides that produces a dramatic sparkle and shine. Recommended for interior use only. Special order/Limited Availability.





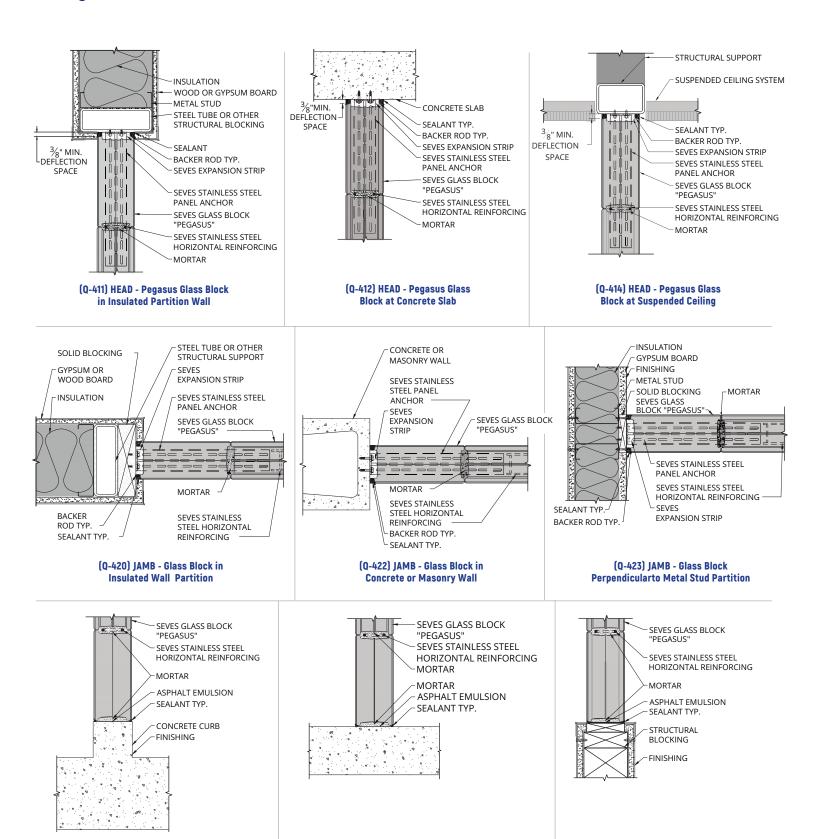


# **Technical Drawings**

# **Design Line Construction Details**

(0-431) SILL - Window at

**Interior Concrete Curb** 

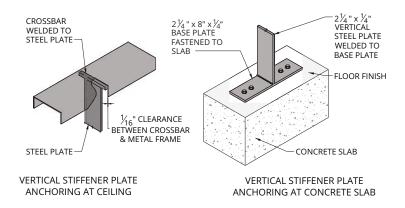


(0-432) SILL - Glass Block at Concrete Slab

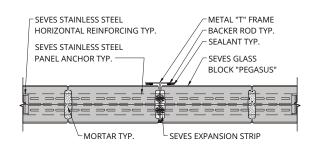
(Q-433) SILL - Glass Block in Partition Wall

# **Design Line**

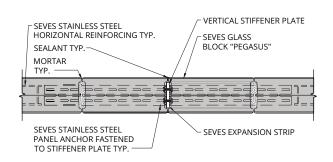
# **Typical Vertical Support**



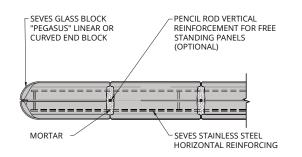
(Q-450) VERTICAL STIFFENER - Intermediate **Support in Multiple Horizontal Panels** 



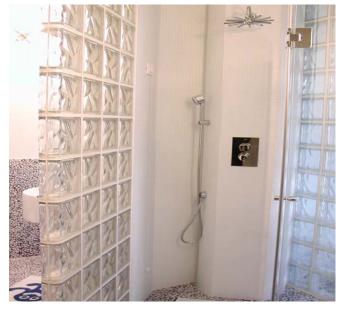
(Q-451) VERTICAL STIFFENER - "T" Intermediate **Vertical Support in Multiple Panels** 



(Q-453) VERTICAL STIFFENER - Hidden Intermediate **Vertical Support in Multiple Panels** 



(Q-454) VERTICAL REINFORCEMENT - Glass **End Block Linear Free Standing Wall** 





# Pegasus Q19 Specifications

#### **TYPICAL DETAIL INFORMATION** AND CODE LIMITATIONS SEVES **PEGASUS Q19 Glass Block Products**

A. Hollow glass block, DESIGN LINE -80mm thickness and special shapes. All block are designed for a modular face dimension in metric sizes with 2mm visible joint thickness. B. Mortar shall conform to ASTM C270 Type 'S' for maximum bond strength. C. Horizontal mortar joints with panel anchors shall have wire reinforcing of 15%" wide consisting of two 9 gauge parallel wires with cross ties 16" on center. All reinforcing to be #304 stainless steel. Horizontal reinforcing to have a maximum spacing of every other joint at 190mm (71/2") block and every joint at 300mm (1134") block. D. Panel anchors to be 1¾" x 16" x 20 gauge stainless steel with elongated perforations. Locate panel anchors in same joint as horizontal reinforcing. Panel anchor to be installed in horizontal joint of masonry wall if possible and embedded 12". For alternate connection, return panel anchor up face of jamb and add two 14" anchors with washers just above bend of anchor. Anchors to be in

horizontal alignment. E. Aluminum channels in lieu of panel anchors are an acceptable alternate. F. Head and jamb channel to be 11/2" x 33/4" x 14 gauge for DESIGN LINE. Channels used for exterior installations should be hot dipped zinc coating, stainless steel, or powder coated aluminum.

G. All glass block panels to be non-load bearing and isolated from surrounding structures/walls with %" thick glass fiber or white polyethylene foam expansion strips at jambs and head. Sill to be coated with asphalt emulsion to serve as a bond breaker. H. Structural members around glass block panels shall be limited to a deflection of L/600.

I. Provide for vertical expansion joints where straight walls and curved walls (radius larger than 24") intersect or at a reversal of the curved wall on exterior applications.

J. All steel, within the wall system, should be #304 stainless steel to minimize rust and staining. K. Limitation of panel sizes:

1. Exterior or interior wall panels using Pegasus (80mm thick) block, exposed to 20 lbs. square foot wind load or less to be limited to 85 square feet when supported on all four sides. Area may be increased to 150 square feet when an intermediate stiffener is incorporated as an additional supporting member near the middle of the panel. Maximum height is limited to 10 feet for exterior and 20 feet for interior installations. Maximum width is limited to 25 feet for exterior and interior.

2. Check governing building code for

3. Contact SEVES (1-877- SEVES11 (1-877-738-3711)) for design of glass block panels subjected to a Strength Level Wind Pressure greater than 32 lbs./sq ft. (ASCE 7) and for design of free standing exterior panels.

**SECTION 04 23 13** GLASS UNIT MASONRY - PEGASUS Hollow Glass Block Unit.

#### **PART 1 GENERAL**

#### 1.01 SUMMARY

SEVES has prepared this specification by using generally accepted and appropriate technical information. The information contained herein should not be solely relied upon but used as a guide for the design and specification of the intended application by the design professional with the appropriate disciplines. SEVES has no control over the elements of design, installation and workmanship and therefore disclaims all liability arising from the use or misuse of this specification.

#### 1.02 WORK INCLUDED

A. SEVES Pegasus Hollow Glass Block

B. Integral joint reinforcing.

C. Mortar

D. Sealers

#### 1.03 RELATED WORK

A. Steel Channels

B. Sills, Lintels and Jamb Conditions

C. Sealant

D. Expansion and Packing Materials

#### 1.04 REFERENCES

A. ASTM E283, Air Leakage B. ASTM C144, Aggregate for Masonry

C. ASTM C150, Portland Cement. D. ASTM C207, Hydrated Lime for Masonry.

E. ASTM C270, Mortar for Unit Masonry.

F. ASTM E330, Uniform Wind Load Structural and Deflection

G. ASTM E547, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air

Pressure Difference. H. ASTM A580, Stainless Steel Wire I. ASTM A167, Stainless Steel

**Perforated Panel Anchors** J. ASTM D1187, Type II Asphalt **Emulsion for Metal Surfaces** K. ASTM D1227, Type III Asphalt

**Emulsion for Porous Surfaces** L. NFPA 257, Fire Test for Glass Block Window Assemblies. (Equivalent to

M. ASTM E331, Water Penetration N. ASTM C920, Standard Specification for Elastomeric Joint Sealants.

#### 1.05 SUBMITTALS

A. Product Data: Submit two (2) copies of SEVES Glass Block North American Design Guide. B. Samples: Submit two (2) SEVES

Glass Block of each type, size and pattern for approval.

#### 1.06 ENVIRONMENTAL

#### **REQUIREMENTS**

A. Maintain materials and ambient air temperatures to a minimum of 40° F prior to, during and 48 hours after the completion of work.

B. Protect SEVES Glass Block from moisture prior to construction.

#### 1.07 WARRANTY

A. Seves offers a limited 5 year warranty on glass block products

#### **PART 2 PRODUCTS**

#### 2.01 ACCEPTABLE

#### **MANUFACTURERS**

A. Seves Glass Block Inc. 10576 Broadview Rd, Cleveland, Ohio 44147 440-627-6257 or 877-SEVES11 (877-738-3711)

www.sevesglassblockinc.com inquiry@sevesglassblock.com

#### 2.02 GLASS UNITS

A. Glass Block Units X X inch

B. Colors (Clear or Colors) \_\_\_\_

C. Pattern

D. Edge Coating – White Latex base

#### 2.03 ACCESSORIES

A. Joint Reinforcing: Ladder type, stainless steel, 2-9 gauge parallel longitudinal wire at 1 %" on center and cross-rods welded at 12" on

B. Panel Anchors: 20 gauge X 13/4" X 16" stainless steel with staggered perforations.

C. Perimeter Chase: Masonry recess, 1/4" steel channel or angles.

D. Asphalt Emulsion: Karnak 220 A/F or equal.

E. Expansion Strips: %" X 4" open cell polyethylene foam or glass fiber.

F. Sealant: 3M™ Fire Barrier Water Tight Sealant 3000wt. or Commercialgrade Silicone Sealant

G. Backer Rod: As recommended by sealant supplier

H. External type water proofer: water-based silicone sealer by BASF Corporation Enviroseal 40 or approved equal.

#### 2.04 MORTAR MATERIALS

A. Shall be prepared according to ASTM C270 for Type S Mortar. Mortar to have 1 part Portland Cement (Type 1), ½ part lime and 2½ to 3 parts of fine sand passing No. 20 sieve and free of iron compounds to avoid stains. Use White Portland Cement and silica sand for white joints. Mix mortar drier than normal and only an amount that will be used in ½ to 1 hour. Glass block will not absorb water the same as brick.

Do not use re-tempered mortar. Do not use antifreeze compounds or accelerators.

B. Add mortar color per manufacturer's instructions. C. A water-based acrylic bonding agent can be added with potable water or approved equal to increase waterproofing qualities of mortar and bond strength.

#### PART 3 EXECUTION

#### 3.01 PREPARATION

A. Verify that pocket recesses or chases provided under other section are accurately located and sized. B. Establish and protect lines, levels and coursing.

#### 3.02 INSTALLATION

A. Arrange coursing pattern to provide consistent joint work throughout.

B. Locate and secure perimeter metal chase if required.

C. Coat sill under units with asphalt emulsion as a bond breaker.

D. Mortar joints must be solid. Furrowing is not permitted. Neatly tool surface to a concave joint.

E. Place panel reinforcing in horizontal joint above first course of block and not more than 18" c.c. for Standard Series, every other course for Thinline Series and every course for Fire Stop Series. Panel anchors if used shall be installed in the same joints as reinforcing.

F. Isolate panel from adjacent construction on sides and top with expansion strips. Keep expansion joint voids clear of mortar.

G. Maintain uniform joint width of 1/4"

H. Maximum variation from plane of unit to the next unit 1/32"

I. Maximum variation of panel from plane 1/16".

j. Do not use re-tempered mortar. K. Do not tap glass block with steel

L. When mortar has set, pack backer rod in jamb and head channels. Recess to allow for sealant.

M. Apply Fire Proof Sealant if rated assembly.

#### 3.03 CLEANING

A. Remove excess mortar from glass surfaces with a damp cloth before set

B. Strike and tool joints as required for proper sealing. Joints should be smooth and not "sandy"

C. Number 4 (0000) steel wool can be used to remove remaining mortar and dried film.

#### 3.04 External sealer

A. Apply External Type Waterproofer: Water based silane sealer type by Sonneborn Building Products (HYDROZO ENVIROSEAL™ 40, 1-800-243-6739).

# **MYMINIGLASS™**

## The MYMINIGLASS™ Collection

Choose from seven styles or types to create a mood for every room: Classic, Natural, Romantic, Vegan, Sophisticated, Futuristic, and Daredevil Types. Use MYMINIGLASS™ to add light and modern flair to bathrooms and kitchens, for statement pieces throughout your home. Add light, texture, and artistic interest to your next project.

# **Classic Type**

#### 6" x 6" x 3"

Add light and privacy for a timeless look. The Arctic pattern of the MYMiniGlass™ Classic Type provides a satin effect to enhance privacy, maximize light, and achieve soft, diffused color.

















**Blueberry** 

Mint

Vanilla

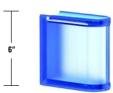
**Arctic** 

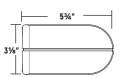
## **Special Shapes & Finishing Units**

Extend your design options with a 90° Sharp Corner or finish your project with the Linear or Curvo Ends. Available only in Classic Type (Blueberry, Mint, Licorice, Cherry, Apricot, Vanilla & Arctic)

#### **Linear End**

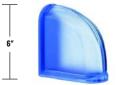
Rounded finishing block ideal for vertical and horizontal applications of panels, walls, and dividers.

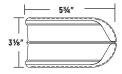




### **Curved End**

Used to transition the Linear End from horizontal to vertical or to create a 'stair-step' design.

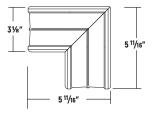




### 90° Corner - MYMINIGLASS™

The 90° 'Sharp' edged corner block is a design alternative to the 90° radius edged corner block.





# Very Natural Type

#### 6" x 6" x 3"

Slip into an attitude as cozy as your favorite t-shirt. Complement neutral interiors with earthy colors and undulated glass reminiscent of ocean waves. MYMiniGlass™ Very Natural Type is the ideal solution for rooms that lack light. Interior Use Only | Special Order.



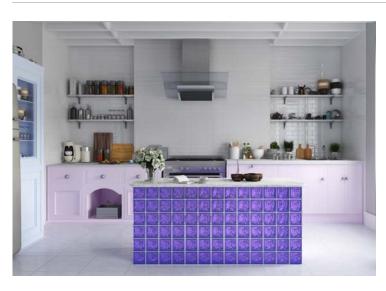




White







# **Sophisticated Type**

#### 6" x 6" x 3"

#### Show off your sophistication

Strike a pose with frosted glass accents in three amazing jewel tones surrounded by a cool touch of blue. Elegant, classy, yet never pretentious, MYMiniGlass™ Sophisticated Type adds spectacular color and jewel-like texture to any room. Interior Use Only | Special Order.







Blue

Violet

Ruby

# **Romantic Type**

#### 6" x 6" x 3"

#### Unleash your inner pop-chic!

Spice up your interiors with passion and pure pop-chic. MYMiniGlass™ Romantic Type makes a bold statement with bright color that brings energy and action to a dull room. Interior Use Only | Special Order.









White

**Pink** 

**Violet** 

Ruby



# MYMINIGLASS™



# **Futuristic Type**

#### 6" x 6" x 3"

#### Set new trends with Futuristic

Modern and minimalist, choose from four sleek colors with metallicfinished bands. MYMiniGlass™ Futuristic Type brings a contemporary look to any home and is the perfect solution for eclectic styles, adding modern flair to interiors. Interior Use Only | Special Order.









**White 100%** 

**Black 100%** 

Black 30%

Blue

# **Daredevil Type**

#### 6" x 6" x 3"

#### Dare to be different.

MYMiniGlass ™ Daredevil Type makes a lavish statement in four vibrant colors: Black 100%, Red, Yellow, and Blue. Use Daredevil in place of expensive artwork or to accent your existing artwork. Interior Use Only | Special Order.



Black

Yellow



Red



Blue





# Vegan Type

#### 6" x 6" x 3"

#### Interiors that reflect your lifestyle.

MYMiniGlass™ Vegan Type lets you philosophize throughout your home, displaying your ethical choices aesthetically with 100% recyclable glass accents, and inviting your guests to take notice. Interior Use Only | Special Order.







Green

Yellow

**Emerald** 

# MYMINIGLASS™ Physical & Design Data

Glass Block	Actual Block Size¹	Weight of glass block (lb)		Number pieces/ sq. ft.	Heat Transmission² U-Value (BTU/hr ft2 °F)	Thermal Resistance² R-value (hr ft2 °F/BTU)	Visible Light Transmis- sion³ (%)	Cases	Sound transmis- sion S.T.C. (dB)	Solar Heat gain coeffi- cient <sup>5</sup> (%)	Fire rating
				мүМini	Collection						
Classic	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	71	.65	41	.66685	45
Linear	5¾" x 5¾"x 3%"	2.9	17.2		0.53	1,89	71	.65	41	.66685	N/A
Curved End	5¾" x 5¾"x 3½"	2.4	17.2		0.53	1,89	71	.65	41	.66685	N/A
Corner	5¾" x 5¾"x 3½"	4.2	17.2		0.53	1,89	71	.65	41	.66685	N/A
Romantic	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	N/A	N/A	41	.66685	N/A
Vegan	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	N/A	N/A	41	.66685	N/A
Daredevil	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	N/A	N/A	41	.66685	N/A
Very Natural	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	N/A	N/A	41	.66685	N/A
Futuristics	5¾" x 5¾"x 3½"	3.1	17.2	4	0.53	1,89	N/A	N/A	41	.66685	N/A

# Save Time and Money. Do It Yourself!

MYMINIGLASS™ just made decorating your home fast and fun with the KWiK'N-EZ® Installation System. Easy to install, interchangeable, and simple to update with the new looks and fresh color each time you redecorate, MYMINIGLASS™ offers high durability and versatility, low maintenance and less waste.

KWiK'N-EZ® Installation System Instruction Manual

Check out the KWiK'N-EZ® Installation System instruction manual and do it yourself! Find step-by-step instructions for building walls and more. Simply print it out and follow the instructions to get started on your new project today, www.sevesglassblockinc.com

# Make your home as unique as your personality. Ideal for colored glass block walls, showers and windows.



KWiK'N-EZ® accessories for MYMINGLASS™ are available in individual components or in complete kits, with all components included for a select number of block.

#### **INSIST UPON GENUINE SEVES BRAND ACCESSORIES:**

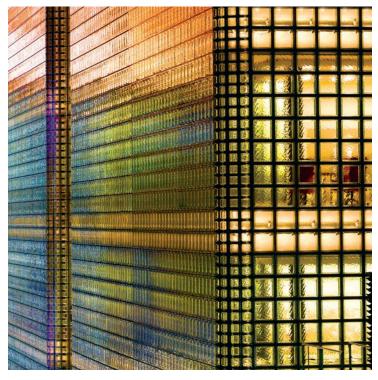
Seves Glass Block has been manufacturing glass block products for over 100 years. Our products and accessories have been engineered and tested to provide maximum performance. Use of genuine Seves brand accessories is important to receive a lifetime of enjoyment from all your glass block projects.

# Tailor Made

# Creativity, Style, Functionality & Innovation

Seves Glass Block accepts all those challenges that seem 'impossible' and transforms them into actual, innovative projects. Thanks to solid, productive know-how, Seves can effectively adapt the production process of a glass block to meet a wide range of demands. Seves Glass Block prides itself on providing customized solutions to architects and designers, and works closely with design professionals during project development to create unique glass block that meet specific aesthetic requirements. Design professionals, you can finally put your own signature on your own glass block and give shape to your creativity. \*Minimum quantity required.











## Doric

#### (Q30) 30cm x 30cm x 8cm | (Q19) 19cm x 19cm x 8cm

Inspired by the ancient Greek columns of the same name. Doric unites classic and modern styles into one exclusive design element. Ideal for creating dramatic linear patterns and optical illusions that play upon the depths of space, Doric is available in transparent, metalized, and frosted finish. Doric can be combined both vertically and horizontally. In vertical compositions such as walls, it provides a uniform column effect, whereas in horizontal applications it adds texture and visual interest.







**Transparent** 

NEW Q19 DORIC SPACER AVAILABLE FOR SILICONE





## **Ginza Collection**

Ginza comes from 'Gin', Japanese for silver. These block derive their lightness and brightness from the silver reflections that have been achieved with a new and exclusive metalization treatment of the lateral profile. These large block are ideal for exteriors and large façades and as elegant furnishing solutions for interiors.

## **Trapezoidal**

(Q30) 30cm x 30cm

The Trapezoidal block, with its square Pegasus shape, has been designed with a brand new section created by inclining the two parallel faces of the block by 5 degrees. Walls with new shapes and geometries can be created by combining, either vertically or horizontally, edges with similar or different thickness.











# **Diamante**

(Q30) 30cm x 30cm x 8cm

The Diamante block, with its raised diamond shaped face, has been designed to give a dramatic geometric contour to interior and exterior walls and surfaces. Diamante was exclusively custom designed with strength and style in mind.

# **Horizontal Block & Pavers**

## **Horizontal**

These paver block are designed for durability and high traffic while still delivering the passage of light if desired. Seves has engineered block capable of being featured in flooring, walkway, and other design structures where maximum strength is a requirement. Sizes are in metric measurements. (All pavers are tested to EU standards only.)



Clearview Sahara 1S 11cm x 11cm x 6cm



Clearview 11cm x 11cm x 6cm



**Circles** 14cm x 14cm x 5cm



**Circles** 19cm x 19cm x 7cm



**BG Clearview** Sahara 1S 19cm x 19cm x 10cm



**BG Dots** Satinated 1S 19cm x 19cm x 8cm



**BG Clearview** Sahara 2s 19cm x 19cm x 10cm



**BG Circles** 14cm x 14cm x 11cm



**BG Clearview** 19cm x 19cm x 10cm



**BG Circles** 19cm x 19cm x 8cm



**BG** Dots 19cm x 19cm x 8cm



**BG Clearview** 19cm x 19cm x 8cm



**BG Clearview** 19cm x 19cm x 8cm Sahara 1S



**BG Clearview** 19cm x 19cm x 8cm Sahara 2S



**Prisma** 16cm x 16cm x 3cm



**Circles** 20cm x 20cm x 2cm



Prisma 20cm x 20cm x 2cm

# **Orbis**

Orbis is a unique option for both horizontal and vertical applications. All the elements for structures that require maximum strength, but with a flare for the design component. Sizes are in metric measurements.



**BGR19/10** 



**BGR19/10** Sahara 2S



**BGR19/10** Sahara 1S



**BR19/5** 



**BR19/5** Sahara 1S



**BR11/6 Clearview** 



**BR11/6 Clearview Sahara 1S** 

# **Horizontal Pavers**

## **Fire Resistant Pavers**

A specific range of glass block suitable for horizontal applications that demand high levels of protection against fire in compliance with the principal regulations. Seves Glass Block submits the 'fire resistant' glass block to strict quality controls which raise their mean resistance and enable the stability of the panel and its heat insulation quality to be verified over time. Sizes are in metric measurements.





**BG 1919/8 30F Clearview** 



**BG 1919/8 30F Clearview** Frosted 2S



**BG 1919/8 30F Clearview** Frosted 1S



**BG 1919/16 60F Clearview** 



**BG 1919/16 60F Clearview** Frosted 2S



**BG 1919/16 60F Clearview** Frosted 1S



BG 1919/16 90F Clearview



BG 1919/16 90F Clearview Frosted 2S



BG 1919/16 90F Clearview Frosted 1S







# **Historical Pavers**

Seves has manufactured three pavers specifically designed for the replacement and/or repair of historical applications for sidewalks and vault lights. Sizes are in metric measurements.



9cm x 9cm x 1.9cm



9cm x 9cm x 2.5cm



7cm x 7cm x 4.8cm

# **Horizontal Solar-Powered Pavers**

## **Photovoltaic**



## **SOLAR POWERED ILLUMINATION**

Photovoltaic transforms the already eco-friendly glass block into a new building instrument, ideal for brightening exterior applications while conserving energy. The Seves Photovoltaic Horizontal Pavers feature solar powered, low-voltage illuminating glass pavers - a fast, easy, and low-cost alternative to electrical ground lighting.

Add soft droplets of light to dark exteriors, or create glowing walkway patterns, all without the need for intricate electrical installation, wiring, or maintenance. These pavers are designed specifically for exterior use in commercial, public, and residential applications such as walkways, sidewalks, bridges, balconies, patios, decks, and gardens as well as in exterior walls and panels.







**PV BR11/6** 

#### SOLAR PANEL

 $0.6\,W\pm10\%$  /  $4\,V$  (service life 25 years) STC OPERATING TEMPERATURE

-20°C / +60°C - (from -4 to +140 °F)

#### **BATTERY**

Li-lon  $3.7\,V/2\,600$  mAh (service life max 500 cycles) To prolong the life expectancy of the battery, a level of battery charge necessary for the Photovoltaic to light up is electronically set.

CHARGING: 150 mA at STC

DISCHARGING: 8-10 mA (or up to 2.9 V)

LED

4 LED GW JDSRS1.EC, 16400 - 21000 mcd

LUMINOUS FLUX: 10 lm (lumen)

LIGHT COLOR: Cool White

OPERATING TIME (Fully charged): 200 hours

Service life: 50000 hrs

#### //ATERIAL

Half-shell glass block

#### **DIMENSIONS**

Dimensions without shell: 4.625" x 2.375"
Dimensions with shell: 5.8125" x 2.625"

WEIGHT: 2.42 lbs.

#### **SOLAR PANEL**

0.6 W±10% / 4 V (service life 25 years) STC

#### OPERATING TEMPERATURE

-20°C / +60°C - (from -4 to +140 °F)

#### **BATTERY**

Li-lon  $3.7\,V/2\,600$  mAh (service life max  $500\,$  cycles) To prolong the life expectancy of the battery, a level of battery charge necessary for the Photovoltaic to light up is electronically set.

CHARGING: 150 mA at STC

DISCHARGING: 8-10 mA (or up to 2.9 V)

LED:

4 LED GW JDSRS1.EC,  $16400 - 21000 \, \text{mcd}$ 

LUMINOUS FLUX: 10 lm (lumen)

LIGHT COLOR: Cool White

OPERATING TIME (Fully charged): 200 hours

Service life: 50000 hrs

#### MATERIAL

Half-shell glass block

#### DIMENSIONS

Dimensions without shell: 4.625" x 4.625" x 2.375" Dimensions with shell: 5.6875" x 5.6875" x 2.5625"

WEIGHT: 2.86 lbs.



PV B1111/6





# **Installation Accessories**

Selecting the correct installation method is just as important as choosing the right block for your glass block project. Seves Glass Block offers multiple installation options, with all the accessory items and components to make the installation simple and pain-free.

## **Mortar Accessories**

#### **Perimeter Channels**

Vinyl perimeter channels for smaller installations. (Light commercial and residential applications)



### **Panel Reinforcing**

Embedded in mortar bed joints for structural integrity.



#### **Panel Anchors**

Tie glass block panels to the surrounding structure when perimeter channels are not used.



# **Foam Expansion Strips**

Cushion glass block and allow for expansion and contraction at heads and jambs.



#### **Glass Block Sealant**

Used in applications to seal perimeter.



### **Universal Wall Anchors**

Used in Vetropieno™ applications at heads of openings.



### **Mortar Spacers**

Speeds up construction and assures uniform joint spacing.



**Universal Mortar** Spacers 1/4" (Fits 3", 4", 80mm & Pegasus)



4" Premiere™ Mortar Spacers 1/4"



**VISTABRIK® Mortar** Spacers 3/8"



Pegasus Mortar Spacers 2mm



4" & 1919/10 Mortar Spacers 10mm

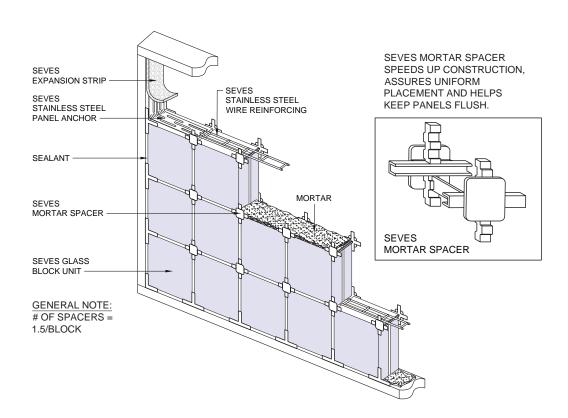


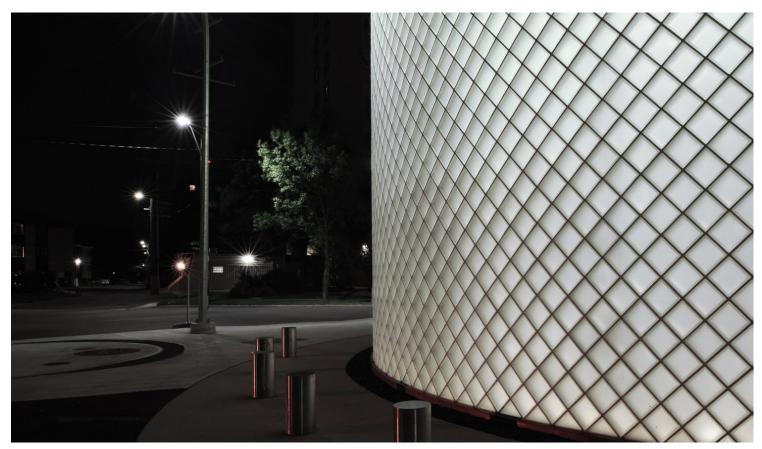
3" & 1919/8 Mortar Spacers 10mm

### **INSIST UPON GENUINE SEVES BRAND ACCESSORIES:**

Seves Glass Block has been manufacturing glass block products for over 100 years. Our products and accessories have been engineered and tested to provide maximum performance. Use of genuine Seves brand accessories is important to receive a lifetime of enjoyment from all your glass block projects.

# **Panel Construction Using Seves Mortar Spacers**





# Installation Accessories Cont.

# Silicone Assembly Accessories

The ProVantage® & KWiK'N-EZ® Silicone Assembly Systems were developed as an option to traditional mortar installation. These mortar-less systems are geared to Residential & Light Commercial applications and can dramatically decrease the time and complexity involved with installing glass block with mortar. These assembly systems are perfect for the novice and do-it-yourself consumers to install glass block in their home or building.

Using this innovative system, glass block is simply stacked together in horizontal rows with the corresponding vinyl spacer between each block. Seves has also created multiple designs of the spacers to incorporate our special shapes, allowing for virtually any configuration conceivable.

Straight horizontal spacers simply butt up to one another to the extend length of your build. Horizontal shaped spacers come with tabs that fit into the adjacent straight or shaped spacer. These tabs can adjust laterally to fit small variables in your design. Specially designed Stainless Steel anchors fit into the hollow end of spacers on every horizontal row, and attach to the adjacent framed wall with screws.

Vertical Spacers are precut relative to the height of the corresponding block collections. These short vertical spacers also come in a variety of vertical shaped spacers to fit custom shaped glass block. After wall is assembled and has cured overnight, there are two options for joint finishing. You can apply a grout finish for a more classic 'grid' look or silicone for an 'all-glass' look. For the classic grid look, float grout until joints are filled and sponge smooth to the desired finish. Grout is not applied at the perimeter where glass block meets the framed wall and curb. For an all-glass look, fill joints with silicone and tool smooth. Sealant is applied in the perimeter joint between glass block and curb or wall for a pliable, watertight seal. This joint is tooled smooth for an appropriate appearance.

# 4" Premiere™ ProVantage® Glass Block Installation System

### **Horizontal Spacer -Hurricane Certified**

Manufactured exclusively to meet the requirements for hurricane wind loads and high velocity impacts. Meets Florida, Miami / Dade & Texas Department of Insurance requirements.



### **Vertical Spacer -Hurricane Certified**

Manufactured exclusively to meet the requirements for hurricane wind loads and high velocity impacts. Meets Florida, Miami / Dade & Texas Department of Insurance requirements. Available in 7 1/4" lengths.



### Horizontal Spacer with Grout-TRAK™

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes.



## Vertical Spacer with Grout-TRAK™

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes.



### 90° Radius Corner **Horizontal Spacer**

Horizontal spacer used between courses of 90° radius corner block.



### AllBend™ **Horizontal Spacer**

Horizontal spacer used between courses of AllBend™ block.



### 90° Radius Corner **Vertical Spacer**

Vertical spacer specifically designed for use between radius corners and 4" block. (Block to Corner = B to C)



### AllBend™ **Vertical Spacer**

Vertical spacer used between two AllBend™ block. (AllBend™ to AllBend™ = A to A)



#### **Universal Wall Anchors**

Stainless steel anchors inserted in the hollow end of the spacer to anchor the panel into the perimeter substrate.



### AllBend™ to Block **Vertical Spacer**

Vertical spacer specifically designed for use between an AllBend™ and 4" block. (AllBend™ to Block = A to B)



### 4" Perimeter Channels

Vinyl perimeter channels for smaller applications. (residential & light commercial applications)



## Half-TRAK™ Horizontal Spacer

Horizontal spacer specifically designed for use as a starter/layout below the first course of block (straight applications only).



# KWiK'N-EZ® Glass Block Installation System

KWiK'N-EZ® Silicone Assembly System is designed for use with 80mm Basic Line and 3" Thinline® glass block products. In lieu of the traditional glass block mortar installation, this system allows for a simpler, quicker, and more consistent method of assembly. DIY consumers can feel confident that after following our installation instructions, their glass block projects will yield professional results, providing enjoyment for years to come.

### **Horizontal Spacer with Grout-TRAK™**

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes. 80mm & 3" Thinline®.



### 90° Radius Corner **Horizontal Spacer**

Horizontal spacer used between courses of 90° radius corner block. 80mm Only.



### Vertical Spacer with Grout-TRAK™

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes. Available in 7" lengths. 80mm & 3" Thinline®.



### 90° Radius Corner **Vertical Spacer**

Vertical spacer specifically designed for use between radius corners and 3" block. (Block to Corner = B to C) 80mm Only.



#### **Universal Wall Anchors**

Stainless steel anchors inserted in the hollow end of the spacer to anchor the panel into the perimeter substrate. 80mm & 3" Thinline®.



### AllBend™ Horizontal Spacer

Horizontal spacer used between courses of AllBend™ block. 80mm Only.



### **Perimeter Channels**

Vinyl perimeter channels for smaller application (residential & light commercial applications) 80r & 3" Thinline®.



### AllBend™ Vertical Spacer

Vertical spacer used between two All-Bend™ block. (AllBend™ to AllBend™ = A to A) 80mm Only.



### AllBend™ to Block Vertical Spacer

Vertical spacer specifically designed for use between an AllBend™ and 3" block. (AllBend™ to Block = A to B) 80mm Only.



## For use with both ProVantage® & KWiK'N-EZ® Installation Systems

#### Glass Block Sealant

Used to adhere all vinvl spacer and block together as well as seal the entire perimeter.



### **Foam Expansion Strips**

Cushion glass block and allow for expansion and contraction at heads and jambs.



### **INSIST UPON GENUINE SEVES BRAND ACCESSORIES:**

Seves Glass Block has been manufacturing glass block products for over 100 years. Our products and accessories have been engineered and tested to provide maximum performance. Use of genuine Seves brand accessories is important to receive a lifetime of enjoyment from all your glass block projects.

# Installation Accessories Cont.

# Design Line - Pegasus and Doric Glass Block Installation System

Seves has developed two separate Silicone Assembly Systems for their Design Line. The first installation system was designed for multiple collections: Pegasus, Pegasus Metalized, Mendini, and New Color Collection. The Q19 Doric, with its deeper profile, required a separate engineered spacer for this unique block. Both Design Line installation systems are perfect for commercial and residential projects with varying levels of installation experience.

## **Pegasus Installation System**

### **Horizontal Spacer**

Manufactured exclusively to fit the deeper profile of the Pegasus Line Products.



# Doric Installation System (Available for Doric Q19 only)

### **Horizontal Spacer**

Manufactured exclusively to fit the deeper profile of the Doric Collection.



### **Vertical Spacer**

Manufactured exclusively to fit the deeper profile of the Pegasus Line Products. Available in 7" lengths.



### Vertical Spacer

Manufactured exclusively to fit the deeper profile of the Doric Collection. Available in 7" lengths.



### **Universal Wall Anchors**

Stainless steel anchors inserted in the hollow end of the spacer to anchor the panel into the perimeter substrate.



#### **Doric Wall Anchors**

Stainless steel anchors inserted in the hollow end of the spacer to anchor the panel into the perimeter substrate.



#### **Perimeter Channels**

Vinyl perimeter channels for smaller applications (residential & light commercial applications). Same as 80mm & 3".







# For use with both MYMINIGLASS™, Pegasus & Doric Installation Systems

#### **Glass Block Sealant**

Used to adhere all vinyl spacer and block together as well as seal the entire perimeter.



### **Foam Expansion Strips**

Cushion glass block and allow for expansion and contraction at heads and jambs.



## MYMINIGLASS™ Accessories

### **Horizontal Spacer with Grout-TRAK™**

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes.



#### **Universal Wall Anchors**

Stainless steel anchors inserted in the hollow end of the spacer to anchor the panel into the perimeter substrate.



### Vertical Spacer with Grout-TRAK™

Vinyl spacer with groove to accept grout finish. Allows for the use of both silicone or grout external finishes. Available in 5" lengths.



### **Perimeter Channels**

Vinyl perimeter channels for smaller applications (residential & light commercial applications). Same as 80mm & 3".



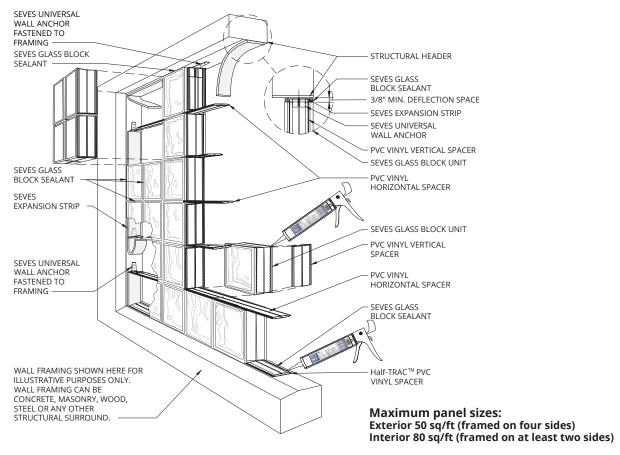
# KWiK'N-EZ® 80mm Layout Cards

Layout cards are specifically designed to work with Seves Basic Line Products for creating templates of walls and partitions. Great for shower and curb layouts.





# Installation Accessories Cont.



## Typical Mortarless Installation - Panel Construction Assembly

For panel sizes exceeding those listed above please contact our technical department at technicalus@sevesglassblock.com



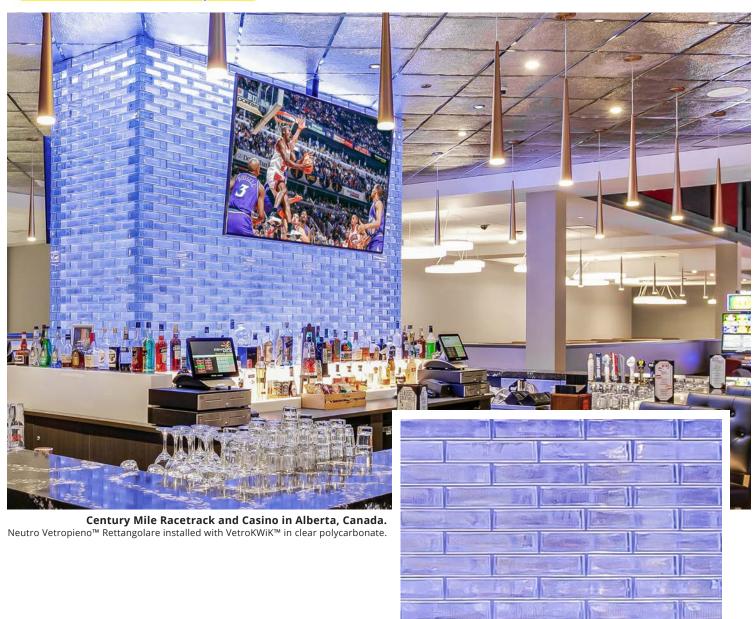
# VetroKWiK™ Solid Glass Brick Installation System

VetroKWiK™ Solid Glass Brick Installation System was developed as a cost effective method of installing Vetropieno™ glass brick. This can replace traditional mortar or silicone installation methods. The snap-together structure assembles with only a rubber mallet. Labor and materials savings far outweigh the cost of the structural components. The precisely formed modules are designed exclusively to match the tapered shape of the Vetropieno™ solid glass brick. Available in optically clear polycarbonate, white, or gray ABS as well as custom tinted colors for specific project requirements.

Please contact Seves Technical Department for further consultation.

1-800-738-3711 or 440-627-6257 and technicalus@sevesglassblock.com.





VetroKWiK™ is a snap-together solution for installation of Vetropieno™ solid glass bricks that utilizes clear polycarbonate and ABS plastic in white or gray. This installation system is a no-mess method that uses precise spacing snap-together modules that replace the need for mortar. The VetroKWiK™ Installation System reduces the time to install Vetropieno™ glass block by approximately 50-75%.

Features & Benefits						
50-75% Reduction of labor.	Available in clear polycarbonate, ABS white and gray					
Polycarbonate affords increased light transmission.	Utilizes a clean working method					
Dimensional stability	Snap together system of assembly					
Structural adhesives may be used for external applications	Precise spacing					
Low maintenance	Structural integrity					
No mess installation	Lighter weight assembly					
No special tools required	Made in USA					

### **Layout Module**





### **Interlocking Modules**





### **Completed Module Assembly**





# Prefabricated Panels & Windows

Available through many Seves Glass Block Inc. distributors, dealers, and home centers, pre-assembled glass block panels and windows eliminate the need to install your window block by block. These panels and windows can be used for new or replacement windows and are made exclusively with thick, durable Seves glass block products.

With our array of multiple sizes, patterns, privacy levels, and colors, Seves Glass Block offers a variety of benefits over traditional windows. Glass block panels can be built as a single unit or in multiple sections to accommodate larger-size openings.

## Why use glass block panels in place of traditional windows?

- Security using Seves installation methods, pre-assembled glass block windows are nearly impenetrable to unwanted intruders.
- Ease of Installation glass block window panels come preassembled and ready to install. The need to install your project block by block is eliminated, saving both the professional and Do-It-Yourselfer time and money.
- Privacy the wide selection of glass patterns allows you to select your preferred level of privacy without the need for shades or other window treatments.
- Day-Lighting Pre-assembled glass block window panels allow you to utilize natural light from outside or borrow light from another room.
- Durable made of real glass, these panels and windows are thick, tough, and resistant to scratching, impacts, and the effects of weather.
- Noise Reduction thick glass helps to filter out noise.
- Low Maintenance nothing to rust, rot, or paint. Glass block can be cleaned with any product approved for glass.
- Affordable with all the benefits listed above, these glass block windows and panels are available at a much lower cost than you might think! They add value to your property and provide many day-to-day benefits at a surprisingly affordable price.



**NUBIO:** Classic, undulating wave design transmits maximum light with moderate distortion. Shown here with an optional air vent.



**NUBIO BRONZE:** Brown colored glass with a wave finish transmits maximum light with moderate distortion.



ICE: Soft, textured design admits light with a high degree of privacy. Shown here with an optional air vent.



**NUBIO:** Classic, undulating wave design transmits maximum light with moderate distortion. Shown here with an optional dryer vent.

# LightWise® Architectural Systems

# **High Performance Prefabricated Systems**

Seves LightWise® Architectural Systems are engineered, prefabricated systems utilizing Seves glass block components which provide both aesthetic and high performance characteristics. Seven options of systems available:

#### **Hurricane-Resistant**

The Hurricane-Resistant Glass Block windows protect your building and its occupants from hurricane winds and, most importantly, flying debris. They meet the large missile tests referenced in the International Building Code, Dade County Approval Protocols and Florida Building Code. System Block patterns available are 884 Endura Thick Set 90, 884 Thick Set 90 Nubio, and 884/664 Clarity Thick Set 90.



### **Tornado-Resistant**

This high performance window provides effective protection against air pressure and flying debris caused by tornado-force winds. Perfect choice for Safe Rooms, Community Shelters, Schools, and Government Facilities. Highest Standards of performance for FEMA 361 - Air Pressure and Tornado Missile Impact Test - Passed air pressure tests (+309/-413) psf - Easy to install and available in various sizes. Window is designed with a steel frame and grid system and is available in VISTABRIK® Clear, Stipple, and Sahara Finish (Light Sandblasted).



#### **Blast-Resistant**

Our Blast-Resistant windows have been designed and tested to meet and exceed stringent government, military, and international building requirements to give you the beauty of glass block with the utmost protection. Meets GSA Standards and DOD/UFC Criteria for various threat levels. With 3 pattern choices; Nubio, Clarity and Endura, these panels let in light while providing privacy and protection for various levels of hlast



### **Security & Detention**

We have an engineered solution to meet the demanding security needs of the architectural and design community. The system is perfect choice for prisons, detention centers, holding cells, correctional facilities, jails, and police departments. The windows are factory assembled in steel frames with various VISTABRIK® options to fulfill your security, privacy, and ballistic requirements.



### **Commercial System**

Prefabricated glass block panels designed to be set in a 2-piece aluminum framing system. Numerous pattern options from our Imperial Line allow you to select various levels of light transmission and privacy to meet your design needs.



#### **Solar Wall Tubes**

Solar Wall Tubes are perfect for commercial buildings with multiwidth walls, where daylighting, light transmission and overall 'well being' of occupants is important. Available in 8" and 16" modules in varying depths.



### **Horizontal Precast Concrete Panels**

Horizontal concrete & glass paver panels allow light to be shared between levels of a building. Light travels down through the floor by day to lighten the space below and glows from underfoot by night.













# Glass Block Solar Wall Tubes

Seves Glass Block Solar Wall Tubes are an easy and aesthetically pleasing way to let light into a building that is built with multi-width walls. The Solar Wall Tubes replace standard masonry units and allow light transmission. Daylighting is increasingly important in buildings today. The more daylight that enters a room, the less energy needed by the electrical systems in the building. Daylighting also has a positive effect on mood, atmosphere, and productivity. The Glass Block Solar Wall Tubes eliminate the need for lintels to structurally support load-bearing masonry above the opening.

### **Superior Thermal Performance**

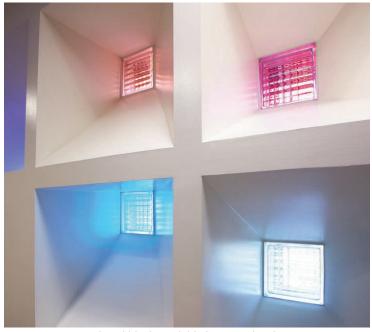
Seves Solar Wall Tubes are available in various sizes with your choice of privacy levels. They are thermally broken and thus provide improved thermal performance. They are easy to install and are selfsupporting when installed in a running bond wall. Solar Wall Tubes are available in 8" and 16" modules in various depths to meet wall thickness requirements.

Test Results of the Solar Wall Tubes Are as Follows:	
Solar Wall Tube (SWT) Description	U-Value
8"x16" SWT with Hollow Glass Block	0.21
8"x16" SWT with Solid Glass Block	0.26
8"x16" SWT with Energy Efficient Glass Block	0.07
8"x8" SWT with Hollow Glass Block	0.27
8"x8" SWT with Solid Glass Block	0.27
8"x8" SWT with Energy Efficient Glass Block	0.11

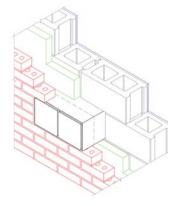


### **Maximum Daylighting**

Solar Wall Tubes are perfect for commercial building walls where you want to bring in light without compromising the masonry look and feel of the building. The Glass Block Solar Wall Tubes mirror-like finish magnifies and reflects the light and solves many design issues related to single or double glass block installations in multi-width wall construction. It allows the architectural look of a single or double glass block on both sides of a thick wall. It provides a visually aesthetic look in the hollow area between the glass block. As with single unit glass block, installation includes proper sealing between the edges of the wall and the tube on both the exterior and interior walls.

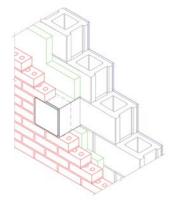


Colored block available by special order.





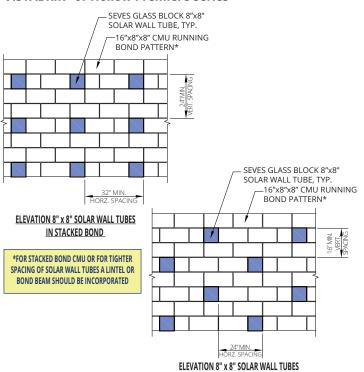


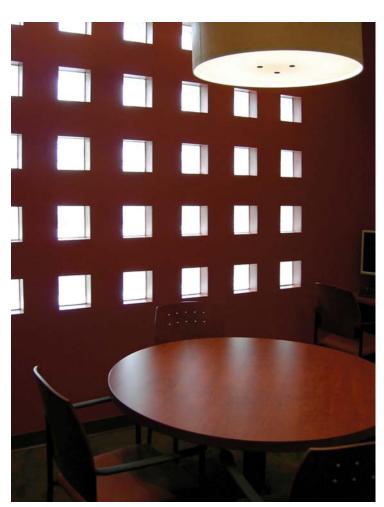




**Single Wall Tube** 

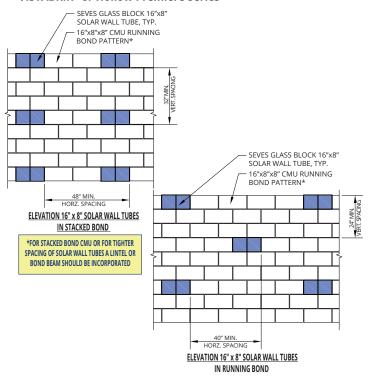
### Recommended Spacing for Single Solar Wall Tube 8" x 8" VISTABRIK® or Hollow Premiere Series







### Recommended Spacing for Single Solar Wall Tube 8" x 8" **VISTABRIK®** or Hollow Premiere Series



### **Need Help?**



# **HURRICANE-RESISTANT WINDOWS**



### **HOLDS BACK HURRICANES.** DANCES WITH LIGHT.

Anyone who has ever experienced a hurricane knows that hurricane force winds are powerful, but the real danger comes in the form of flying debris. That means, if you're designing a building to withstand a hurricane, it needs to be able to stand up to flying debris as well.

Protect your building and its occupants with Seves LightWise® Architectural Systems Hurricane-Resistant Glass Block Windows. They meet the large missile impact tests referenced in the International Building Code, Miami/Dade County and Florida State Approvals. Plus, they're attractive, easy to install, and offer the kind of privacy and light aesthetics you can only get with glass block.

- No Need for Shutters
- Protects Against Flying Debris
- Withstands Hurricane-Force Winds
- Miami / Dade County (NOA) 20 - 1110.06
- Florida State Product Approval FL17313



### **Hurricane-Resistant Glass Block Windows**

Seves LightWise® Architectural Systems Hurricane-Resistant Glass Block Windows brighten any application with soft, natural light. They're ideal for use in commercial applications where beauty, light transmission, and protection against hurricane force winds and debris is critical. The window has passed the large missile impact tests recognized by the International Building Code, Florida State and Miam/Dade County and is approved for use in coastal areas.

### Features & Benefits of the Window Include:

- Visually stunning, prefabricated panels that are easy to install
- No need for shutters
- Customizable to meet project needs
- Guaranteed to meet your performance requirements
- Useful for daylighting strategies
- Protects against flying debris and hurricane-force winds
- Available with a range of visibility and privacy options
- Graffiti-resistant, damage resistant, and easy to clean
- Greater security than conventional windows
- Possibilities are limited only by your imagination

### System Design Features

Seves LightWise® Architectural Systems Hurricane-Resistant Glass Block windows consist of glass block framed by a 2-piece aluminum channel. The standard channel is mill finished, anodized clear or bronze. Powder coating is also available.

LightWise® Architectural Systems Hurricane-Resistant Glass Block Windows are available as pre-assembled windows for easy installation. They can be ordered in custom sizes in 8" increments in the three patterns listed, up to the required design pressure rating. A 6" base increment is available in Clarity only.



### Glass Block Patterns Available:









**NUBIO THICKSET® 90** 

**CLARITY THICKSET® 90** 

**ENDURA THICKSET® 90** 

Also available by special order in colored block.

### Tested Passed/Code Approvals:

- Meets large missile impact tests referenced in the International Building Code (IBC), in accordance with ASTM E-1886 and ASTM E-1996
- Tested to the State of Florida and Miami/Dade County Approval protocols TAS 201, 202, 203
- Window size and Design Pressure Rating:
  - 6' x 6' = 68 PSF Design Pressure
  - 4' x 8' = 80 PSF Design Pressure
  - 4' x 4' = 100 PSF Design Pressure

### **Need Help?**



# TORNADO-RESISTANT WINDOWS



### YOU'LL FEEL SAFE AND SECURE **KNOWING THIS WINDOW CAN RESIST** WIND SPEEDS OF 250 MPH

Seves Glass Block has engineered a high-performance window that provides effective protection against air pressure and flying debris caused by tornado-force winds. The following information can assist you in the design and incorporation of these windows into your projects.

This window is the perfect choice for Safe Rooms, Community Shelters, Schools, and Government Facilities. See what is happening outside the shelter while being protected from the elements. Seves LightWise® Architectural Systems Tornado-Resistant Windows are factory assembled, steel-ramed glass block windows. Custom sized windows are available.

- ASTM 330 08
- ICC/NSSA 500
- AAMA 520 & ASTM 2268
- Passed Air Pressure Tests (+309/-413) psf
- Easy To Install & Available In Various Sizes
- Highest Standards of Performance For FEMA 361/320
- Tornado Missile Impact Tested



### Tornado-Resistant Glass Block Windows Safety, Durability, and Light Transmittance

LightWise® Architectural Systems Tornado-Resistant Windows are extraordinarily versatile and available in various sizes. Utilizing laminated VISTABRIK® solid glass block with a steel frame and grid, this window requires minimal maintenance and is ideal for facilities where safety and security is critical.

LightWise® Architectural Systems Tornado-Resistant Windows provide needed protection from the elements while letting people see what is happening outside of the shelter. They let daylight into a space that would otherwise rely on artificial light that could be impacted by power outages.

In accordance with FEMA 361, LightWise® Architectural Systems Tornado-Resistant Windows passed several levels of air pressure tests, including 309 positive psf and negative 413 psf. The 413 psf equates to a wind speed of over 400 mph. It is significant to note that the highest recorded wind speed on earth was 253 mph.

### Performance Features & Benefits:

- Effective protection against air pressure and flying debris caused by tornado-force winds
- Highest standards of performance for FEMA 361 'Design and Construction Guidelines for Community Safe Rooms'
- Factory assembled for consistent quality

### This Factory Assembled Window Provides:

- Strength and durability of steel
- Beauty and strength of laminated VISTABRIK®
- Enhanced security with vision & light transmission
- Resistance to tornado-force winds and flying debris
- Reduced on-site labor costs
- Protection from damaging UV rays

### Laminated VISTABRIK® Solid Glass Block:



Laminated **VISTABRIK®** - Clear



Laminated **VISTABRIK®** - Stippled



### Seves LightWise® Tornado-Resistant Windows Are Manufactured To Meet The Following Standards:

- FEMA 361-Air Pressure and Tornado Missile Impact Test - Two hits: 15 lbs., 2 x 4 @100 mph
- FEMA 320-Taking Shelter From the Storm: Building a Safe Room For Your Home or Small Business
- ICC 500-2008
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage
- ASTM E330 Standard Test Method for Structural Performance
- Passed air pressure tests (+309/-413) psf., which equates to a wind speed of over 400mph (with a 1.5 safety factor).



Steel frame with 8" x 8" Laminated VISTABRIK® Solid Glass Block.

### **Need Help?**



# **BLAST-RESISTANT GLASS BLOCK PANELS**



### MAKES THREATS LESS THREATENING BY MAKING IMPACTS LESS IMPACTFUL.

Our blast-resistant panels have been designed and tested to meet and exceed stringent government, military, and international building requirements to give you the beauty of glass with the utmost protection.

Many injuries to building occupants are caused by glass fragments sent flying through the air from the force of a blast. Unlike laminated flat glass, which will often crack and sometimes release fragments during a blast, there was no cracking or loss of glass in the tests conducted on our Seves LightWise® Architectural Systems Blast Resistant Glass Block Panels.

- ASTM F 1642
- GSA TS01 2003 DOD UFC04 010 01
- Enhanced Protection For Building Occupants
- Greater Security Than Conventional Windows
- Meets GSA and UFC 04-010-01 Blast Glass **Standards**
- Complies With Numerous Blast Standards & Requirements



LightWise® Architectural Systems Blast-Resistant Glass Block Panels let in light while providing privacy and protection from various levels of blast. They are the perfect choice for high-risk buildings such as military facilities, airports, government offices, embassies, courthouses, correctional facilities, arenas, financial centers, offices, and other high-profile public and retail spaces.

### **System Security Features:**

- Meets GSA and UFC 04-0110-01 blast glass standards
- Offers enhanced protection to building occupants
- Provides greater security than conventional windows
- Reduces hazardous glass fragments
- No cracking or loss of glass during testing

Engineering analysis supplemented with shock tube testing performed by an independent laboratory has determined that Lightwise® Architectural Systems Blast-Resistant Glass Block Panels with sizes ranging from 4' x 4' to 8' x 8' perform to an ASTM 'Minimal Hazard' or GSA 'Performance Condition 2' or Better For:

- General Services Administration (GSA) Level C and Level D
- Unified Facilities Criteria (UFC) DoD Minimum Anti-terrorism Standards for Buildings Type I threats at 25m and 45m standoff distance and Type II threats at 10m and 25m standoff distance.
- For Petrochemical applications, a successful blast test of longer duration was also performed.

Smaller and larger windows are available. Contact Seves Glass Block for more information.

### Glass Block Patterns Available:









**NUBIO THICKSET® 90** 

Clarity THICKSET® 90

**ENDURA THICKSET® 90** 

**System Facts** 

Seves LightWise® Architectural Systems Blast Resistant Glass Block Panels consist of glass block framed by a 2-piece aluminum channel. Standard channel is mill finished, anodized clear or bronze. Powder coating is also available.

### System Design Features:

- Visually stunning, prefabricated panels are easy to install
- Customizable to meet project needs
- Designed to meet your performance requirements
- Useful for daylighting strategies
- Available with a range of visibility and privacy options
- Graffiti-resistant, damage-resistant, and easy to clean
- Panels can be installed from either the interior or exterior of a building.
- · Real glass is easy to maintain, unlike films or plastic, which scratch easily
- Real glass will not yellow over time, unlike films or plastic
- Possibilities are limited only by your imagination







### **Need Help?**



# **SECURITY & DETENTION**

### YOU CAN'T ESCAPE IT - A SECURITY SYSTEM MADE OF GLASS AND STEEL

Seves Glass Block has an engineered solution to meet the demanding security needs of the architectural and design community. The following information can assist you in the design and incorporation of these windows into your projects.

This system is the perfect choice for prisons, detention centers, holding cells, correctional facilities, criminal justice facilities, police departments, and jails. Seves LightWise® Architectural Systems Threat-Resistant Windows are factory assembled, steel-framed glass block windows. Custom sized windows are available.

- ASTM F1233 08
- UL 752 ANSI Z97.1
- SD STD 01.01 CPSC 16 CFR 1201
- Enhanced Security With Vision & Light **Transmission**
- Extraordinarily Versatile & Available In Various Sizes
- Ability To Meet UL 752 Ballistic Resistance
  - Levels 1 through 6



### Safety, Durability, and Light Transmittance

LightWise® Architectural Systems Security and Detention Windows are extraordinarily versatile and available in various sizes. Utilizing VISTABRIK® solid glass block with a steel frame and grid, this window requires minimal maintenance and is ideal for facilities where safety and security is critical.

LightWise® Architectural Systems Security and Detention Windows increase the amount of natural daylighting that comes into a room while still providing a secure environment.

### Performance Features & Benefits:

- Enhanced Security
- Ballistic Resistant levels
- Varying privacy levels
- Impact Resistant
- Pick Proof
- Factory assembled for consistent quality

### **High Performance Glazing:**

- Will not burn
- Resists scratching and marring
- Will not discolor
- Reduces maintenance costs

### This Factory-Assembled Window Provides:

- Strength and durability of steel
- Welded corners and grids
- Narrow sight lines
- Enhanced security with vision and light transmission
- Resistance to Forced Entry/Exit
- Reduced on-site labor costs
- Expedited installation sequencing
- Ballistic resistance

### VISTABRIK® Solid Glass Block:



Also available in a Frosted finish on either one or two face. (VISTABRIK® Solid Glass Block meet UL-752 ballistic resistance levels 1, 2 and 6.)

### For higher security requirements, Seves offers a laminated option.

(Laminated VISTABRIK® Solid Glass Block meet UL-752 ballistic resistance levels 1 thru 6.)

### Seves Glass Block Security and Detention Windows are manufactured to meet the following standards:

- ASTM E 283 Standard Test Method for Determining Rate of Air Leakage
- ASTM E 330 Standard Test Method for Structural Performance
- ASTM E 547 Standard Test Method for Water Penetration
- ASTM A1011 Standard Specification for Steel
- ASTM C 920 Standard Specification for Elastomeric **Joint Sealants**
- AN SI Z97.1 Safety Glazing Materials Used in Buildings
  - Safety Performance Specifications and Methods of Test
- 16 CFR Part 1201 Consumer **Product Safety Commission** (CPSC) Safety Standard for Architectural Glazing Materials

### **Need Help?**



## PRE-ASSEMBLED GLASS BLOCK WINDOWS

### 100% REAL GLASS BLOCK FROM SEVES!

The Wise Choice! Now More Than Ever. Seves LightWise® Residential Series Windows are a wise choice when you want the beauty and durability of real glass block with less installation hassle. Every LightWise® Window starts with Real Seves Glass Block, which resists scratching and won't burn or discolor like plastic block.

### Beauty Wise! Few Windows Can Beautify A Room Like Lightwise®.

That is because nothing can compare to the beauty of glass block. No other material can capture light like glass. It can brighten any room with beautiful, soft, natural light.

Design Wise! Ideal For Bathroom Applications Or As An Accent For Any Room To Let Light In. You can control privacy and appeal by varying pattern selections. Eliminate the need for window treatments and let the natural beauty of glass shine through.

Comfort Wise! You Can Be Comfortable In A Room With Lightwise® Windows. By selecting varying block patterns, you can control visibility, without sacrificing natural light. Glass block can also provide excellent sound insulation.

Make the WISE Choice!

- Full 3" thick real glass block windows with powder-coated, thermally enhanced aluminum frames.
- Two-color frames are standard!
- Maintenance-free, no mold or mildew, no scratches.
- Easy to clean with off-the-shelf cleaners.
- Will not yellow from cleaners like with acrylic block.
- Over 6,000 window combinations available!



### Frame Colors:

Available in a variety of powder coat frame colors. Choose one color for the exterior side and another for the interior.



### **Easy Installation**

Seves LightWise® Residential Series Windows are completely assembled, weather sealed, and install the same as any window with integrated nailing fins. Now, anyone can install glass block!

### **Nationwide Shipping**

We manufacture each window to your exact specification before carefully packaging and shipping for safe delivery.

### **Guaranteed Quality**

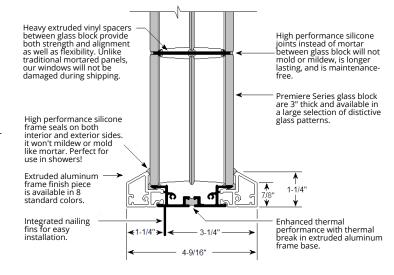
Every component of a LightWise® Residential Series window is designed to provide the highest quality and the most design flexibility of any glass block window product in the industry. Meticulous attention to detail by highly skilled craftsmen assures consistent warranted, quality in every window.

### Did You Know:

- Our real glass block will not scratch, haze, or yellow like acrylic block maintenance free
- High-performance silicone between glass block is mold & mildew
- · Easy to keep clean with off-the-shelf bath cleaners
- No restrictions like acrylic block

### **Key Features and Options:**

- Select different frame colors for exterior and interior sides (no extra cost) - 8 standard colors to choose from
- Full 3" thick glass block select from 5 distinctive glass patterns
- Completely factory assembled and weather sealed on both sides
- Powder-coat finishes are much more durable than paint for shower and bath installations
- Anti-fungal silicone joints and frame seals will not mold or mildew
- 79 standard window sizes
- 190 custom colors available at additional cost (call factory for details)



### **Block Patterns:**



### **Need Help?**

# DECOBLOC®

### The Original Glass Block for Crafting

Seves DECOBLOC® is a wonderful outlet for artists and crafters to showcase their creative expression. The block are perfect for holiday decorative projects, but have an infinite number of uses. DECOBLOC® can be used for any holiday or occasion; the only limitation is your own imagination. Create wonderful designs for the holidays, centerpieces, terrarium plant-holders, and other interior decoration ideas. DECOBLOC® glass block for crafting are a blank canvas to express your unique style. The use in Deco-style architectural designs combined with eye-pleasing dimensions and light-transmitting and light-diffusion characteristics makes DECOBLOC® the perfect foundation for a host of artistic uses.

Crafters looking to add inventive decor to their home can choose from two distinct styles and a range of sizes. DECOBLOC® Clearview pattern is a clear glass with complete visibility available in 7½" x 7½" x 3",  $5\frac{3}{4}$ " x  $5\frac{3}{4}$ " x 3" and  $7\frac{3}{4}$ " x  $3\frac{3}{4}$ " x 3". The traditional Wave pattern can offer more light diffusion and lower visibility available in 7½" x 7½" x 3".

A DECOBLOC® stand is also available to display your work of art.





Wave 7 1/2" X 7 1/2" X 3"



Clearview 7 1/2" X 7 1/2" X 3"



Clearview 5 34" X 5 34" X 3"



Clearview 7 34" X 3 34" X 3"







### Design for the Inside and Outside:

- Candy
- Flowers
- Money
- Sand
- Soil
- Lights
- Rocks/Shells/Marbles

- Ribbon
- Stencil
- Paint
- Glitter/Rhinestones
- Engraving/Etching
- Stickers/Decals











Insist upon Genuine DECOBLOC $^{\circ}$  products Visit: www.mydecobloc.com

# **DECORATED Glass Block**

Glass block has always had a dynamic relationship with light. Now you can see how it reacts with color and images. Create custom designs using Seves Glass Block Inc. Glass block is no longer just a classic and versatile building material; it is now also a critical design element for any room or building.

The DECORATED Collection is available as individual accent glass block or murals. Each glass block is an individually crafted work of art that can be mixed with other glass block to form a wall or window of great beauty. And since the application of the color or images does not affect the fire rating of the glass block, it is suitable for applications where fire-rating is required.

The DECORATED Collection can be used in both interior and exterior applications. The application opportunities are limitless.

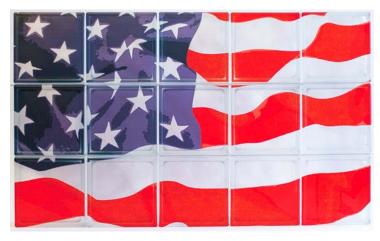
### **Express Yourself with Glass Block**

Go ahead; the new DECORATED Collection from Seves Glass Block Inc. is giving you the freedom to do just that. Available on all Seves Glass Block products.

### **DECORATED Collection**

- · Add an artistic touch to your décor
- Available as individual accent glass block or murals
- Can be used in both interior and exterior applications
- Allows you to add a personal touch to your space
- Patented process using Seves Glass Block

Simply imagine it and we can make it happen. Now you can customize and enhance your designs with glass block. Using a patented process to add color or images to any size or pattern, glass block is no longer just a classic and versatile building material, but rather it's a unique work of art. Perfect for any setting, the application options are varied and limited only by your imagination.

















### **A New Design Element**

Glass block has always had a dynamic relationship with light. Now you can see how it reacts with color and images. Create custom designs using Seves Glass Block Inc. Glass block is no longer just a classic and versatile building material, it is now also a critical design element for any room or building.

The DECORATED Collection is available as individual accent glass block or murals. Each glass block is an individually crafted work of art that can be mixed with other glass block to form a wall or window of great beauty. And since the application of the color or images does not affect the fire rating of the glass block, it is suitable for applications where fire-rating is required.

The DECORATED Collection can be used in both interior and exterior applications. The application opportunities are limitless.

### **DECORATED Collection**

The DECORATED Collection Accent from Seves Glass Block Inc. allows you to add a personal touch to your space.

Note: a sampling of the available 'standard' accent block is shown below

### Where to Use:

- Healthcare
- Schools and universities
- Sports complexes
- Retail space
- · Community centers
- · Corporate logos for buildings
- Wayward signing can be incorporated onto the glass block (exit signs, etc.)















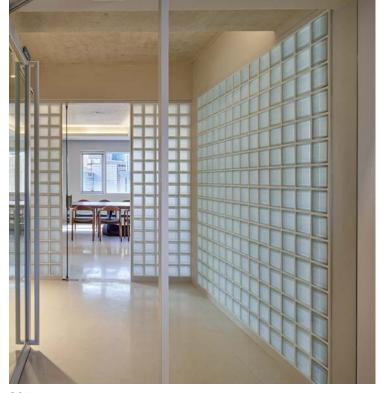


# Interior Residential/Commercial Applications









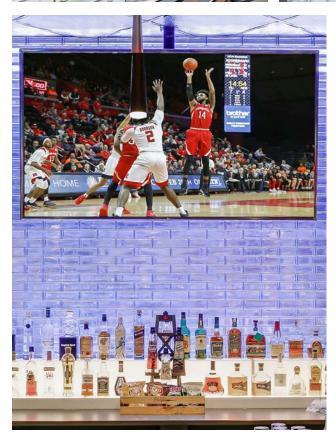








































# **Exterior Commercial Applications**























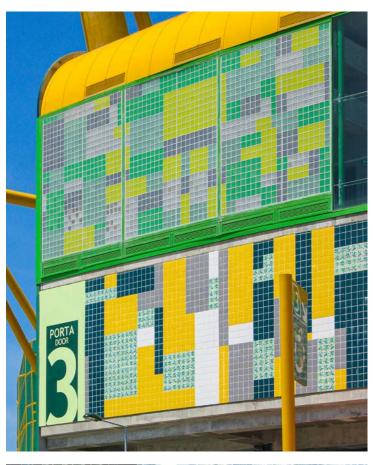






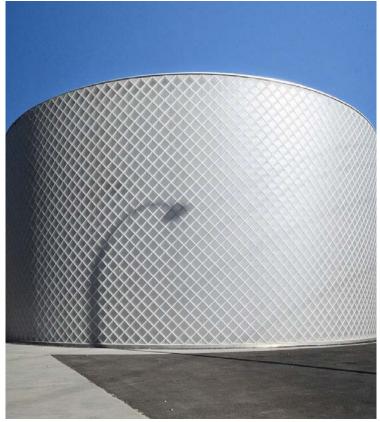












# **Notes**

# Warranty & Support

### **Unparalleled Global Support**

SEVES GLASS BLOCK Inc. is the only global glass block manufacturer that can provide you and your design staff technical and design support for projects around the globe. With sales and technical staff available in most countries and every continent around the world, you can feel confident in specifying any one of our thousands of available glass block products. Many additional services are available through Seves distribution and dealer networks. They can provide valuable services such as sample selection, professional installations, on-site assistance, and technical support. Call 1.877.738.3711 or visit www.sevesglassblockinc.com to find out why architects specify Seves Glass Block Inc. more than any other glass block in the world. Please send inquiries to inquiry@sevesglassblock.com.

### Seves Glass Block 5 Year Limited Warranty

Seves Glass Block, Inc. promises to replace any glass block found to be defective within five years from the date of purchase, provided that the installation was performed in accordance to our published Specifications, Installation Instructions, Details and the use of Seves branded accessories. Cutting or any modification of Seves Glass Block Units shall void any warranty. Damaged glass block will not be replaced due to or from the result of faulty installation. Upon discovery of any defect or damage, you should send written notice to: Seves Glass Block Inc., 10576 Broadview Rd. Cleveland, Ohio 44147. Proof of purchase is required, and actual glass block sample and/or photographs of glass block(s) deemed to be faulty will be required. Seves will fully review the claim and replace block(s) found to be defective by manufacturing.

Seves Glass Block, Inc. agrees to replacement of all defective block, excluding labor. Seves is not liable for consequential or incidental damages or injury relating to customer purchase or use of Seves Glass Block products. Warranties are limited to a five-year duration time from the exact date of purchase of any Seves Glass Block product. Some states or providences may not or do not currently allow the limitation or of incidental or consequential damages, or the limitation on how long an implied warranty may last - thus the above limitations may not apply to all. This warranty gives you specific legal rights - you may also have other rights which vary from state to state/providence to providence.

All the above information contained herein is accurate and reliable to the date of publication to the best of Seves Glass Block's knowledge. With exemption, due to Seves Glass Block having no control or direction over actual installation method and workmanship, accessory materials, or conditions during actual application, NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE IS MADE as to the performance of an installation containing Seves Glass Block products. In no event shall Seves Glass Block be liable for any damages arising because of product failure, whether incidental, special, consequential, or punitive, regardless of the theory of liability upon which any such damages are claimed.

> MORE PATTERNS. MORE COLORS. MORE SHAPES & SIZES, MORE CHOICE.

CREATE MORE

