

# SEVES GLASS BLOCK

**NORTH AMERICAN**

GLASS BLOCK  
DESIGN GUIDE



ENDLESS PATTERNS. VIBRANT COLORS.  
DIVERSE SHAPES & SIZES. INFINITE OPTIONS.

UNLEASH YOUR CREATIVITY.

# 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.

Miami/Dade NOA's: 20-1110.07 & 20-1110.08 | State of Florida: FL5357 & FL1363 | Texas Department of Insurance: WIN-62 & WIN-63

### Nubio - THICKSET® 60

8"x8"x4"

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



### Nubio - THICKSET® 90

8"x8"x4"

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



### Spray - THICKSET® 60

8"x8"x4"

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® 90

8"x8"x4" | 6"x6"x4"

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.



### Clarity - THICKSET® 60

8"x8"x4"

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.



### Endura - THICKSET® 90

8"x8"x4"

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) | Approximate Installed Weight (lb/ft <sup>2</sup> ) | Number pieces/sq. ft. | Heat Transmission <sup>2</sup> U-Value (BTU/hr ft <sup>2</sup> °F) | Thermal Resistance <sup>2</sup> R-value (hr ft <sup>2</sup> °F/ BTU) | Visible Light Transmission <sup>3</sup> (%) | Shading Coefficient <sup>4</sup> | Sound Transmission S.T.C. (dB) | Solar Heat Gain Coefficient <sup>5</sup> (%) | Fire Rating |
|----------------------------|--------------------------------|----------------------------|----------------------------------------------------|-----------------------|--------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------|----------------------------------|--------------------------------|----------------------------------------------|-------------|
| 6x6x4 Clarity THICKSET® 90 | 5 3/4" x 5 3/4" x 3 3/8"       | 5.5                        | 23.7                                               | 4                     | 0.51                                                               | 1.96                                                                 | 70                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                         | 90          |
| 8x8x4 Clarity THICKSET® 60 | 7 3/4" x 7 3/4" x 3 3/8"       | 7.8                        | 22.7                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 75                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                         | 60          |
| 8x8x4 Clarity THICKSET® 90 | 7 3/4" x 7 3/4" x 3 3/8"       | 10.6                       | 25.5                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 70                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                         | 90          |
| 8x8x4 Nubio THICKSET® 60   | 7 3/4" x 7 3/4" x 3 3/8"       | 7.8                        | 22.7                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 49                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                         | 60          |
| 8x8x4 Nubio THICKSET® 90   | 7 3/4" x 7 3/4" x 3 3/8"       | 10.6                       | 25.5                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 38                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                         | 90          |
| 8x8x4 Spray THICKSET® 60   | 7 3/4" x 7 3/4" x 3 3/8"       | 7.8                        | 22.7                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 45                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                         | 60          |
| 8x8x4 Endura THICKSET® 90  | 7 3/4" x 7 3/4" x 3 3/8"       | 10.6                       | 25.5                                               | 2.25                  | 0.51                                                               | 1.96                                                                 | 38                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                         | 90          |

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

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

<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.

# 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®

8" x 8" x 3"

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®

6" x 8" x 3"

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



### VISTABRIK®

8" x 8" x 3" Stippled Pattern

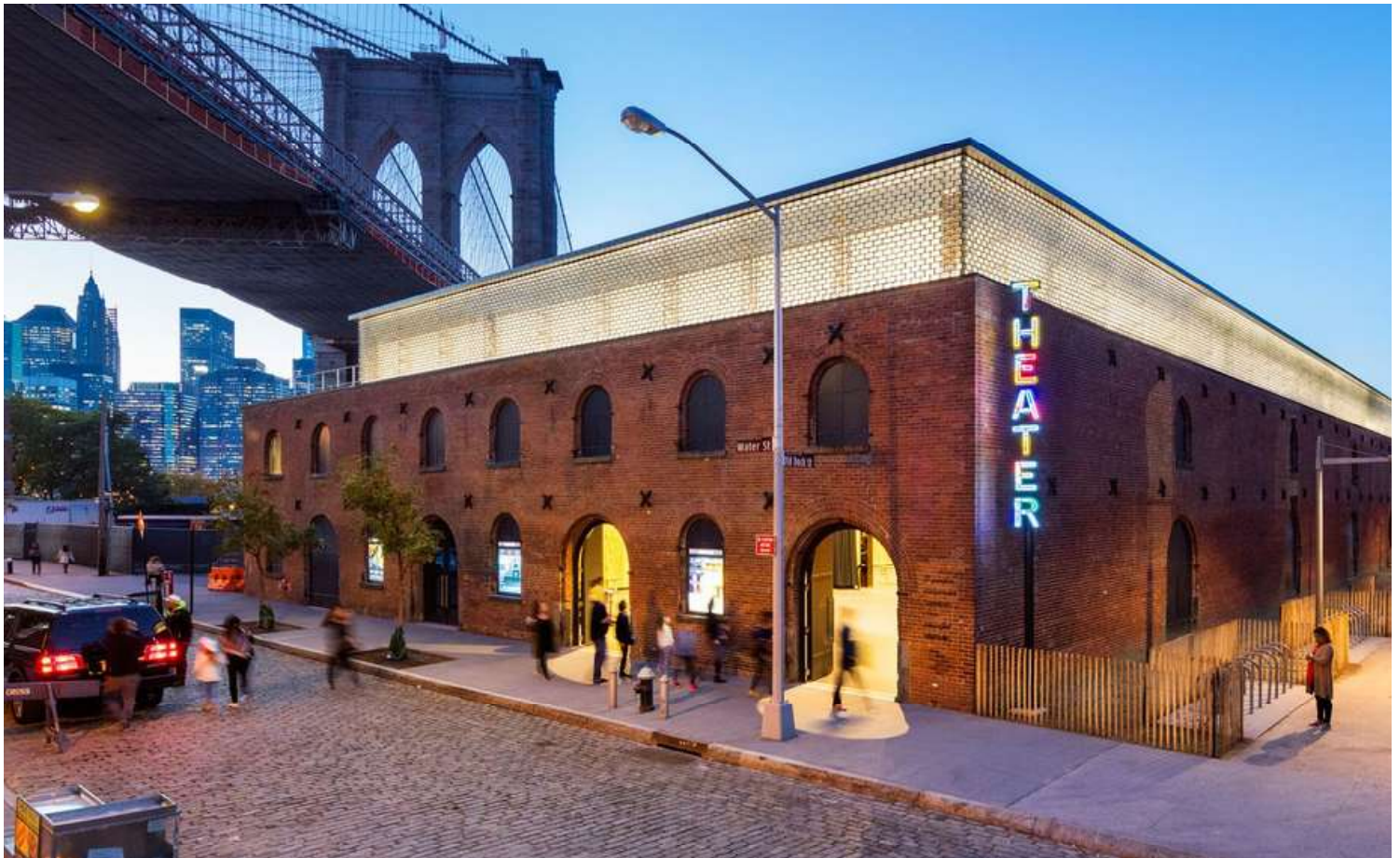
3" solid glass block with stipple finish to add privacy. Durable, impact and vandal resistant with good light transmission. \*(Also in 8" x 8" x 1.5" Pavers)



### VISTABRIK®

4" x 8" x 3"

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



# Solid Glass Brick

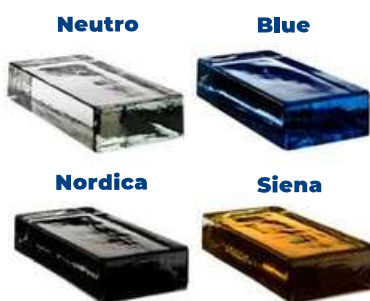
Seves Vetropieno™ Solid Glass Brick brings together the appeal of traditional brick and the transparency and luminosity of glass. This completely unique design solution can be used in place of traditional bricks to create dramatic interior, exterior, or partition walls that maximize the passage of light - 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™ 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"

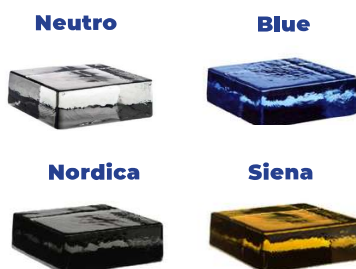
Provides a 90-minute fire rating. 100% solid glass bricks in clear. Glass bricks deliver a unique visual and light transparency unlike those of standard hollow brick. (Sized to correlate with modular US brick sizes.)



### 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.



Comedor | Austin, TX | Olson Kundig Architects | Installed by GBA Architectural Products



# High Performance Products

## High Performance Products Physical & Design Data

| Glass Block                    | Actual Block Size <sup>1</sup> | Weight of glass block (lb) | Approximate Installed Weight (b/ft <sup>2</sup> ) | Number pieces/sq. ft. | Heat Transmission <sup>2</sup> U-Value (BTU/hr ft <sup>2</sup> °F) | Thermal Resistance <sup>2</sup> R-value (hr ft <sup>2</sup> °F/ BTU) | Visible Light Transmission <sup>3</sup> (%) | Shading Coefficient <sup>4</sup> | Sound Transmission S.T.C. (dB) | Solar Heat Gain Co-efficient <sup>5</sup> (%) | Fire Rating |
|--------------------------------|--------------------------------|----------------------------|---------------------------------------------------|-----------------------|--------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------|----------------------------------|--------------------------------|-----------------------------------------------|-------------|
| THICKSET® Products             |                                |                            |                                                   |                       |                                                                    |                                                                      |                                             |                                  |                                |                                               |             |
| 6x6x4 Clarity THICKSET® 90     | 5¾" x 5¾" x 3⅞"                | 5.5                        | 23.7                                              | 4                     | 0.51                                                               | 1.96                                                                 | 70                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                          | 90          |
| 8x8x4 Clarity THICKSET® 60     | 7¾" x 7¾" x 3⅞"                | 7.8                        | 22.7                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 75                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                          | 60          |
| 8x8x4 Clarity THICKSET® 90     | 7¾" x 7¾" x 3⅞"                | 10.6                       | 25.5                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 70                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                          | 90          |
| 8x8x4 Nubio THICKSET® 60       | 7¾" x 7¾" x 3⅞"                | 7.8                        | 22.7                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 49                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                          | 60          |
| 8x8x4 Nubio THICKSET® 90       | 7¾" x 7¾" x 3⅞"                | 10.6                       | 25.5                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 38                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                          | 90          |
| 8x8x4 Spray THICKSET® 60       | 7¾" x 7¾" x 3⅞"                | 7.8                        | 22.7                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 45                                          | .65                              | 48                             | .66-.68 <sup>5</sup>                          | 60          |
| 8x8x4 Endura THICKSET® 90      | 7¾" x 7¾" x 3⅞"                | 10.6                       | 25.5                                              | 2.25                  | 0.51                                                               | 1.96                                                                 | 38                                          | .65                              | 50                             | .66-.68 <sup>5</sup>                          | 90          |
| Vistabrik® Products            |                                |                            |                                                   |                       |                                                                    |                                                                      |                                             |                                  |                                |                                               |             |
| 8x8x3 VISTABRIK®               | 7⅞" x 7⅞" x 3"                 | 15.4                       | 40                                                | 2.25                  | 0.7                                                                | 1.42                                                                 | 90                                          | 49.4                             | 53                             | .75-.78 <sup>5</sup>                          | 90          |
| 8x8x3 VISTABRIK® Stipple       | 7⅞" x 7⅞" x 3"                 | 15.4                       | 40                                                | 2.25                  | 0.7                                                                | 1.42                                                                 | 83                                          | 49.4                             | 53                             | .75-.78 <sup>5</sup>                          | 90          |
| 6x8x3 VISTABRIK®               | 5⅞" x 7⅞" x 3"                 | 9.9                        | 40                                                | 3                     | 0.7                                                                | 1.42                                                                 | 90                                          | 49.4                             | 53                             | .75-.78 <sup>5</sup>                          | 90          |
| 4x8x3 VISTABRIK®               | 3⅞" x 7⅞" x 3"                 | 7.9                        | 40                                                | 4.5                   | 0.7                                                                | 1.42                                                                 | 90                                          | 49.4                             | 53                             | .75-.78 <sup>5</sup>                          | 90          |
| Vetropieno™ Products           |                                |                            |                                                   |                       |                                                                    |                                                                      |                                             |                                  |                                |                                               |             |
| 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          |
| Vetropieno Americano™ Products |                                |                            |                                                   |                       |                                                                    |                                                                      |                                             |                                  |                                |                                               |             |
| 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          |

1 Size-Block are manufactured to a 1/32" (1mm tolerance)  
2 Heat Transmission/Thermal Resistance: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS.  
3 Light Transmission-Values +/-5%  
4 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.



# 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 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, 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 fire-rated 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 fire-rated 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 sides.

## 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 ¼" 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.

| Masonry Wall Construction |                   |                  |             |         |         | 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 Width | 45 Min.     | 60 Min. |
| Thinline® Series          | 120 sq. ft.       | 12 ft.           | ◆           |         |         | Thinline® Series              | 94 sq. ft.        | 10.75 ft.        | ◆           |         |
| Premiere™ 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.            | ◆           | ◆       | ◆ *     | THICKSET® 90                  | 94 sq. ft.        | 10.75 ft.        | ◆           | ◆       |
| VISTABRIK®                | 100 sq. ft.       | 10 ft.           | ◆           | ◆       | ◆ *     | VISTABRIK®                    | 94 sq. ft.        | 10.75 ft.        | ◆           | ◆       |
| Vetropieno™               | 100 sq. ft.       | 10 ft.           | ◆           | ◆       | ◆ *     | Vetropieno™                   | 94 sq. ft.        | 10.75 ft.        | ◆           | ◆       |

\*¼" steel channel. ¾" 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 stream 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.

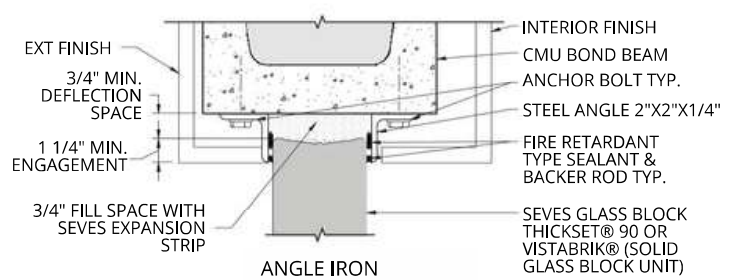
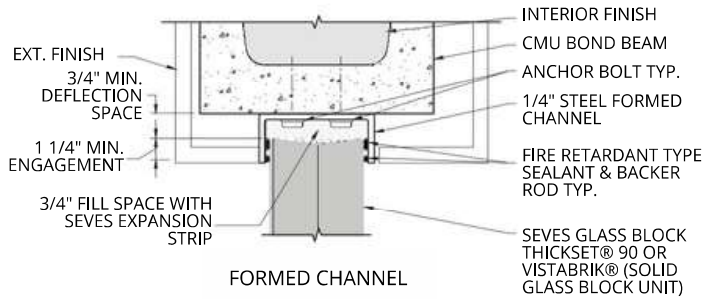
Interior windows are limited to 45 minutes, exterior windows are limited to 90 minutes, and both to 25% of the entire wall area **in 1 hour fire partitions/corridors, smoke barriers, incidental use areas, and mixed occupancy separations**. The application and sizes are limited by the IBC based on the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

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

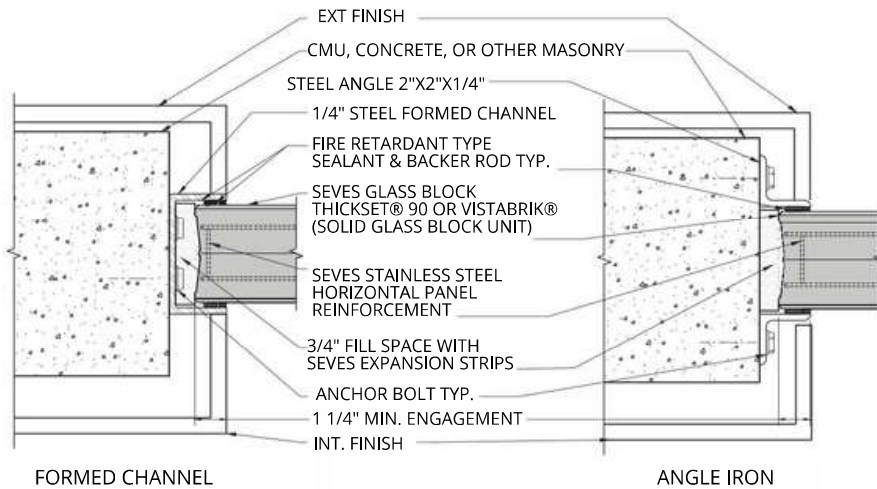
The fire-rated glass product is subject to the fire endurance test, the radiant heat test and the hose stream test. If the fire rated glass block remains intact and limits the temperature rise to less than 250 degrees F above ambient on the non-fire side, the fire rated glass product passes. These products are classified as **Fire Resistive** and can be used up to the maximum size tested.

**AVAILABLE NOW IN WAVE AND CLARITY PATTERNS.**

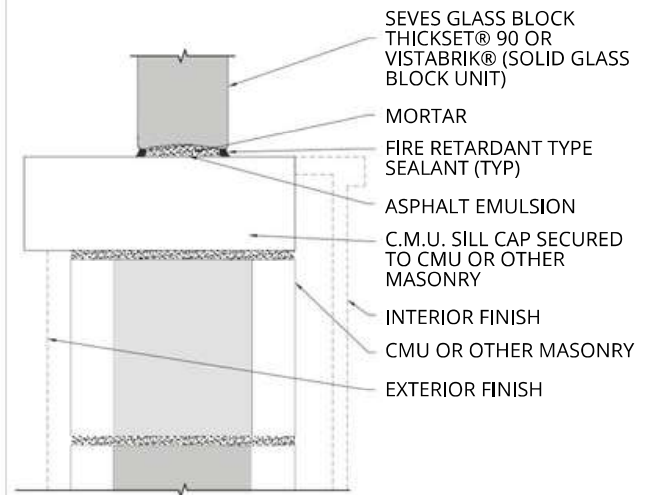
## Fired Rated Construction Details



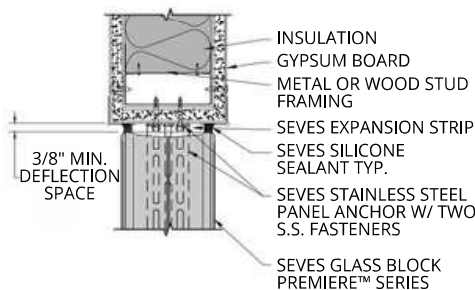
**(FR-010) HEAD - 90 Min Fire Rated Glass Block at CMU / Bond Beam**



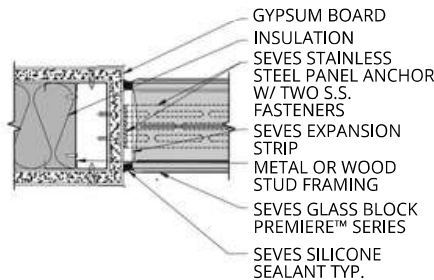
**(FR-120) JAMB - 90 Min Fire Rated Glass Block at CMU Wall**



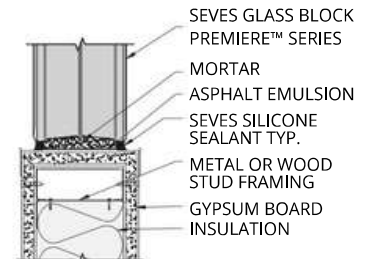
**(FR-130) SILL - 90 Min Fire Rated Glass Block at CMU Wall**



**(FR-111) HEAD - 45 Min Fire Rated Glass Block in Metal Stud Wall**



**(FR-123) JAMB - 45 Min Fire Rated Glass Block in Metal Stud Wall**



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