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

| Glass Block                | Actual Block Size <sup>1</sup> | Weight of<br>glass block<br>(lb) |        | Number<br>pieces/<br>sq.ft. | Heat<br>Trans-<br>mission <sup>2</sup><br>U-Value<br>(BTU/hr<br>ft2 °F) | Thermal<br>Resistance <sup>2</sup><br>R-value<br>(hr ft2 °F/<br>BTU) | Visible<br>Light Trans-<br>mission³<br>(%) |      | Sound trans-<br>mission S.T.C.<br>(dB) | Solar Heat Gain<br>Coefficient <sup>s</sup> (%) | Fire rating |  |  |
|----------------------------|--------------------------------|----------------------------------|--------|-----------------------------|---|--|--|------|--|---|-------------|--|--|
| THICKSET® Products         |                                |                                  |        |                             |   |  |  |      |  |   |             |  |  |
| 6x6x4 Clarity THICKSET® 90 | 5-3/4" x 5-3/4"x 3-7/8"        | 5.5                              | 23.7   | 4                           | 0.51  | 1.96   | 75   | .65  | 48                                     | .66685  | 90          |  |  |
| 8x8x4 Clarity THICKSET® 60 | 7-3/4" x 7-3/4"x 3-7/8"        | 7.8                              | 22.7   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 48                                     | .66685  | 60          |  |  |
| 8x8x4 Clarity THICKSET® 90 | 7-3/4" x 7-3/4"x 3-7/8"        | 10.6                             | 25.5   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 50                                     | .66685  | 90          |  |  |
| 8x8x4 Nubio THICKSET® 60   | 7-3/4" x 7-3/4"x 3-7/8"        | 7.8                              | 22.7   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 48                                     | .66685  | 60          |  |  |
| 8x8x4 Nubio THICKSET® 90   | 7-3/4" x 7-3/4"x 3-7/8"        | 10.6                             | 25.5   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 50                                     | .66685  | 90          |  |  |
| 8x8x4 Spray THICKSET® 60   | 7-3/4" x 7-3/4"x 3-7/8"        | 7.8                              | 22.7   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 48                                     | .66685  | 60          |  |  |
| 8x8x4 Endura THICKSET® 90  | 7-3/4" x 7-3/4"x 3-7/8"        | 10.6                             | 25.5   | 2.25                        | 0.51  | 1.96   | 75   | .65  | 50                                     | .66685  | 90          |  |  |
| 8x8x3 VistaBrik            | 7-5/8" x 7-5/8"x 3"            | 15.4                             | 40     | 2.25                        | 0.7   | 1.42   | 90   | 49.4 | 53                                     | .75785  | 90          |  |  |
| 8x8x3 VistaBrik Stipple    | 7-5/8" x 7-5/8"x 3"            | 15.4                             | 40     | 2.25                        | 0.7   | 1.42   | 83   | 49.4 | 53                                     | .75785  | 90          |  |  |
| 6x8x3 VistaBrik            | 5-5/8" x 7-5/8"x 3"            | 9.9                              | 33     | 3                           | 0.7   | 1.42   | 90   | 49.4 | 53                                     | .75785  | 90          |  |  |
| 4x8x3 VistaBrik            | 3-5/8" x 7-5/8"x 3"            | 7.9                              | 39     | 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   | 5.8                         | 0.62  | 1.61   | 44   | 58.6 | 43                                     | 51  | 90          |  |  |
| Nuetro Quadrato            | 4.625" x 2.125" x 4.725"       | 3.7                              | 51.2   | 11.2                        | 0.62  | 1.61   | 44   | 58.6 | 43                                     | 51  | 90          |  |  |
| Blu Rettangolare           | 4.60" x 2.125" x 9.45"         | 7.7                              | 51.8   | 5.8                         | 0.62  | 1.61   | 7  | 42.5 | 43                                     | 37  | 90          |  |  |
| Blu Quadrato               | 4.625" x 2.125" x 4.725"       | 3.7                              | 51.2   | 11.2                        | 0.62  | 1.61   | 7  | 42.5 | 43                                     | 37  | 90          |  |  |
| Nordica Rettangolare       | 4.60" x 2.125" x 9.45"         | 7.7                              | 51.8   | 5.8                         | 0.62  | 1.61   | 2  | 39.1 | 43                                     | 34  | 90          |  |  |
| Nordica Quadrato           | 4.625" x 2.125" x 4.725"       | 3.7                              | 51.2   | 11.2                        | 0.62  | 1.61   | 2  | 39.1 | 43                                     | 34  | 90          |  |  |
| Siena Rettangolare         | 4.60" x 2.125" x 9.45"         | 7.7                              | 51.8   | 5.8                         | 0.62  | 1.61   | 8  | 40.2 | 43                                     | 35  | 90          |  |  |
| Siena Quadrato             | 4.625" x 2.125" x 4.725"       | 3.7                              | 51.2   | 11.2                        | 0.62  | 1.61   | 8  | 40.2 | 43                                     | 35  | 90          |  |  |
|                            |                                | Vetro                            | oieno⁺ | <sup>™</sup> - Am           | ericano   | Produc   | cts  |      |  |   |             |  |  |
| Neutro Rettangolare        | 3.675" x 2.250" x 7.675"       | 5.29                             | 51.7   | 8.4                         | 0.62  | 1.61   | 44   | 58.6 | 43                                     | 51  | 90          |  |  |
| Nuetro Quadrato            | 3.675" x 2.250" x 3.750"       | 2.64                             | 52.5   | 17.1                        | 0.62  | 1.61   | 44   | 58.6 | 43                                     | 51  | 90          |  |  |

Seves Glass Block has a sales and technical support team that is ready to help you design, engineer and specify glass block solutions. Please visit our website at

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# FIRE-RATED GLASS BLOCK

PREMIERE™ SERIES · THICKSET® 45, 60, 90 · VISTABRIK · VETROPIENO



<sup>&</sup>lt;sup>1</sup>Size-Blocks are manufactured to a 1/16' (2mm tolerance)

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

<sup>&</sup>lt;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.

# GLASS BLOCK FOR FIRE PROTECTION

Seves Glass Block manufactures Glass Block through a simple, yet exacting process and maintains the highest quality standards to produce a unique building material - virtually a brick made of glass. The special combination of properties increases design flexibility and provides many functional benefits. The material offers transparency, emitting generous amounts of natural or borrowed light while at the same time providing energy efficiency, sound control, security, and visual texture. When patterned, Glass Block offers a unique combination of privacy and light transmission.

An extremely important feature of Glass Block, critical to safe building design, is the products inherent fire-resistance property. By varying the face thickness of the product and conforming to installation specifications, Seves Glass Block offers a family 45 and 60 minute fire rated products that conform with UL-9 or NFPA 257 standards for window assemblies. Our 90 minute rated products are tested to NFPA 257 and are certified by National Accreditation and Management Institute (NAMI) as window assemblies. With Vetropieno, our newest addition to our fire rated glass block family. This solid glass brick provides up to a 90-minute fire rating in a window assembly without sacrificing aestetics, design, flexibility, light transmission or privacy. In addition, these products can be specified in different patterns or colors to meet your design needs.

#### Our Family of Fire-Rated Glass Block and Solid Glass Brick Products



#### 4" PREMIERE™ SERIES

- The Premiere™ Series includes the largest selection of patterns, sizes and shapes for the utmost in design flexibility.
- All patterns of Premiere™ Series Glass Block are classified by UL for use in 45-minute-rated window assemblies.
- Available patterns: Alpha, Argus, Clarity, Cortina, Cross Ribbed, Light Diffusing, Nubio, Tartan
- Available Sizes: All sizes except 12" x 12" and shapes.
- Nominal face thickness = 0.25"
- Sound Transmission Class (S.T.C.) = 39
- Frosted finish available for added privacy.



#### **THICKSET® 60**

- The THICKSET® 60 Glass Block is a thicker-faced block that provides all the traditional benefits of glass block plus a 60-minute fire rating.
- THICKSET® 60 Block is certified UL-9 and NFPA 257 standards for use in 45- or 60- minute-rated window assemblies.
- · Available patterns: NUBIO, CLARITY, SPRAY
- Available Sizes: 8" x 8" x 4" • Nominal face thickness = 0.375"
- Sound Transmission Class (S.T.C) = 48
- · Frosted finish available for added privacy.



#### Vetropieno™

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

- VETROPIENO™ Solid Glass Brick is certified UL-9 and NFPA 257 standards for use in 45-, 60- or
- Vetropieno™ Rettangolare: 4.60" x 2.125" x 9.45"
- 2.125" x 4.725"
- Nominal face thickness = 3.0"
- Sound Transmission Class (S.T.C) = 53

and 3-designer colors. Glass bricks

- 90-minute rated window assemblies.
- Vetropieno™ Quadrato: 4.625" x



#### **THICKSET® 90**

- The THICKSET® 90 Glass Block is a thicker-faced block that provides all the traditional benefits of glass block plus a 90-minute fire rating.
- THICKSET® 90 Block is approved by UL-9 and NFPA 257 standards for use in 45-, 60- or 90- minute-
- rated window assemblies. • Available patterns: NUBIO, ENDURA, and CLARITY
- Available in Frosted for added privacy.
- Available Sizes: 6" x 6" x 4" CLARITY 8" x 8" x 4" NUBIO, ENDURA and CLARITY
- Nominal face thickness = 0.75"
- Sound Transmission Class (S.T.C.) = 50

#### **VISTABRIK® 90**

VISTABRIK® Solid Glass Block is the ultimate glass block solution, 3 solid inches of glass which resists bullets, fire, noise, graffiti, and forcible entry.

- VISTABRIK® Solid Glass Block is approved by UL-9 and NFPA 257 standards for use in 45-, 60- or 90-minute rated window assemblies.
- Available patterns: Clear for good visibility or Stippled or Frosted for added privacy.
- VISTABRIK® Solid Glass Block are bullet resistant.
- Available Sizes: 8" x 8" x 3", 4" x 8" x 3", 6" x 8" x 3"
- Actual face thickness = 3.0"
- Sound Transmission Class (S.T.C.) = 53

## **Vetropieno™ Americano**

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. Available in Clear only.

- VETROPIENO™ AMERICANO Solid Glass Brick is certified UL-9 and NFPA 257 standards for use in 45-, 60- or 90-minute rated window assemblies.
- Vetropieno™ Americano Rettangolare: 3.675" x 2.250" x 7.675"
- Vetropieno™ Americano Quadrato: 3.675" x 2.250" x 3.750" • Nominal face thickness = 3.0"
- Sound Transmission Class (S.T.C) = 53

#### **Functional Benefits of Glass Block**

#### Fire Resistant

Certified by Underwriters Laboratory (UL) Standards, NFPA 257 and are certified by National Accreditation and Management Institute (NAMI) as window assemblies.

#### Graffiti Resistant

Glass Block resists damage and is easy to clean.

#### Noise Resistant

Glass Blocks thick faces provide great sound resistance.

#### Vision Control

Glass Blocks provide a range of visibility depending on pattern chosen.

#### Light Transmission

Glass Blocks allow varying degrees of light transmission.

## Design Flexibility

The wide variety of styles and patterns and functional benefits allow for endless design options.

## Security

Glass Blocks enhance the security of your building

#### **Application Uses**

Fire Rated Glass Block and Bricks can be used in Residential, Institutional and Commercial buildings.

#### **Typical Applications are:**

- Multi-Unit Housing Stairwells
- Limited Lot Line Windows Communities • Other Fire Rated uses.
- Corridors

#### **Notes:**

For complete installation details, product information, specifications and more information on how to design with Seves Glass Block products, see our Architectural Products Brochure or visit our website at www.sevesglassblockinc.com



## Fire-Rated Glass Block Window Assemblies

Premiere™ Series Glass Blocks, THICKSET® 60, THICKSET® 90, 3" thick VISTABRIK® and Vetropieno™ Solid Glass Block 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 |            | F                   | Panel Limitations             | Fire Rating         |         |         |  |  |
| Product                         | Max. Area /<br>Panel | Max Ht. or<br>Width | 45 Min. | 60 Min.     | 90 Min.    | Product             | Max. Area /<br>Panel          | Max Ht. or<br>Width | 45 Min. | 60 Min. |  |  |
| Thinline®<br>Series             | 120 sq. ft.          | 12 ft.              | •       |             |            | Thinline®<br>Series | 94 sq. ft.                    | 10.75 ft.           | •       |         |  |  |
| Premiere <sup>™</sup><br>Series | 120 sq. ft.          | 12 ft.              | •       |             |            | Premiere™<br>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>1/4&</sup>quot; steel channel, 3/4" thick expansion material at head and jambs, and fire retardant sealant are required