

architectural products



# GLASS BLOCK PRODUCTS



# PITTSBURGH CORNING GLASS BLOCK

Pittsburgh Corning Corporation has been manufacturing Pittsburgh Corning Glass Block products since 1937 and today is the only domestic manufacturer in North America. The company recognizes its responsibility to provide a variety of products and to furnish accurate descriptive and technical information which will help the design professional select and specify Pittsburgh Corning Glass Block products.

The comprehensive variety of patterns, styles and sizes available have been designed to work together in your projects as a total system. Pittsburgh Corning stands behind all its glass block when used exclusively with Pittsburgh Corning accessory products by offering a limited five-year warranty.

## [www.pittsburghcorning.com](http://www.pittsburghcorning.com)

features application photos, product information, specifications, installation details, literature, continuing education, case histories, and much more information on how to design with Pittsburgh Corning Glass Block products.

### ON THE COVER:

College of the Sequoias, Learning Resource Center, Visalia, CA  
Architect: Spencer/Hoskins Associates  
ARGUS® Pattern

North Hollywood Police Station, N. Hollywood, CA  
Architect: Meyer & Allen Associates  
ARGUS® Pattern and HEDRON® Corner Block

Lawrence College, Appleton, WI // VUE® Pattern

Appalachian State University, School of Business, Boone, NC  
Architect: J.N. Pease Associates // VUE® Pattern



**Circle of Design Excellence Award Winner**  
Sponsored by Pittsburgh Corning, this program recognizes those designs where glass block forms a prominent architectural feature of a building, either interior or exterior.

Hillman Cancer Center, Pittsburgh, PA // Architect: IKM Inc.



**“We selected the glass block to create a visually stunning separation between the research and clinical pavilions. It enabled the transmission of natural daylight into the labs and treatment areas while still maintaining the appropriate degree of privacy. The use of glass block greatly contributed to the Hillman Cancer Center’s artful expression of both the functional and emotional needs of the clinical pavilion dedicated to healing, and the opportunity for interaction and flexibility of a research pavilion dedicated to finding a cure.”** – Mihai Marcu, AIA, President, IKM Inc.



(l to r): AT&T Information Systems, Weston, MA  
Designer: Hugh Stubbins & Associates  
VUE® Pattern

Mercy Hospital, St. Caritas Cancer Center, Springfield, MA  
Architect: AE Design, Inc.  
ESSEX® AA and IceScapes® Patterns



**“This building is going to be used for everything from black tie parties to basketball games. So every inch of this place has to endure years of hard wear – and look great doing it. VISTABRIK® Glass Block has the perfect balance of durability, security and sheer beauty to make this place special.”**

– Lisa Armstrong, AIA, Architect  
Armstrong Kaulbach Architects

Lloyd Hall, Philadelphia, PA  
Architect: Armstrong Kaulbach Architects  
VISTABRIK® Solid Glass Block, VUE® Pattern

## BEAUTY AND VERSATILITY

Extraordinarily versatile and available in many aesthetically pleasing sizes and styles, glass block offers virtually limitless design possibilities. Glass block walls, partitions and windows combine the delicate beauty and light transmission of glass with the strength of glass block.

Big opportunities generally mean big challenges. So when Armstrong Kaulbach Architects designed the first new building, **Lloyd Hall** (see photo on page 2), on Philadelphia's Boathouse Row, they were looking at a once-a-century challenge.

It had to be big without dwarfing its neighbors. A modern classic with 19th century charm and 21st century convenience. They achieved this with a skylit, peaked profile and a three-sided exposure of VISTABRIK® Glass Block.



Veteran's Administration Hospital Chapel, Detroit, MI  
Architect: Smith, Hinchman & Grylls, Inc. // DECORA® Pattern



## SECURITY

When top architects need to add security to their projects, Pittsburgh Corning answers with a range of solutions:

### Premiere Series

Available in the widest range of sizes, shapes and patterns, these blocks offer enhanced resistance to impact, fire, sound transmission, graffiti and weather.

### THICKSET® Series

These thicker-faced blocks offer all the performance features of our Premiere Series but with an extra reduction in sound transmission and increased fire resistance available in 60- or 90-minute ratings.

### VISTABRIK® Glass Block

Three inches of solid glass block make this the top-performing product offering the highest ballistic ratings, resistance to impact and sound transmission while still transmitting 80% of available light.

## VISIBILITY/LIGHT TRANSMISSION

Glass block provides exceptional visibility in compliance with ADA guidelines for enclosed areas. It is also scratch-resistant and transmits up to 80% of available light in both directions without any yellowing, clouding or weathering.

## GRAFFITI RESISTANT

Glass block resists damage and is easy to clean.

University of Toledo - Nitschke Auditorium  
ARGUS® Pattern and VUE® Pattern

## 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. THICKSET® Series Block STC ranges between 48-50, and Premiere Series Glass Block 35 to 40.

## BULLET RESISTANT

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

## ENERGY CONSERVATION

Glass block can provide more than double the thermal resistance (R-Value) of single-glaze 1/8" thick plate glass. The differences between the shading coefficient of glass block and flat sheet glass is also significant. Contributing to this is the louvering effect of glass block's horizontal mortar joints, which helps reduce light transmission from the higher summer sun. The size and orientation of the block can greatly affect the amount of shading that can occur. Now with the advent of new energy codes, solar heat gain has become an important issue. The new INSOLAR™ Low E glass block can satisfy the Solar Heat Gain Coefficient requirements in the United States.

# GLASS BLOCK BENEFITS & APPLICATIONS



"This building had to embody the LAPD's more open, community-oriented mission. The ARGUS® pattern glass block was really critical in creating that openness. It gives us the perfect balance of light and security."

– Clifton Allen, Architect

North Hollywood Police Station,  
N. Hollywood, CA  
Architect: Meyer & Allen Associates  
ARGUS® Pattern and  
HEDRON® Corner Block

## NEW! HURRICANE IMPACT GLASS BLOCK SYSTEM



Pittsburgh Corning's THICKSET® 90 Glass Block with our KWIK'N EZ® Rigid Track Installation System is hurricane tested and code approved. The system has passed hurricane impact tests recognized by the International Building Code and Dade County in coastal areas. Which makes it the perfect solution if you want beauty and function that will weather most any storm.

## EARTHQUAKE RESISTANCE

Pittsburgh Corning Glass Block met the requirements of Section 1630.2, (Vol. 2) of the 1994 Uniform Building Code which governed seismic design of nonstructural components supported by structures.

The Northridge, CA earthquake on January 17, 1994 was the largest earthquake in the United States to have its epicenter in an urban area. A detailed survey was made of the performance of

structures containing Pittsburgh Corning glass block panel applications. In all sites visited, the glass block walls and panel systems that were designed and constructed in accordance with Pittsburgh Corning specifications and the provision of the Uniform Building Code resisted the seismic forces without failure.

Glass block panels inherently have attributes that make them very safe in earthquakes,

including the fact that since glass block panels are isolated from the framing with expansion joints, the glass block are better able to resist the seismic forces independent of their surrounding frames.

In summary, glass block panel design criteria currently specified in the UBC provides an excellent architectural product that performed very well during the Northridge earthquake.



Private Residence // DECORA® Pattern

## FIRE RESISTANT

An important feature of glass block, critical to safe building design, is the product's inherent fire-resistance property. By varying the face thickness of the product and conforming to installation specifications, Pittsburgh Corning is able to offer a family of fire rated products approved and rated according to Underwriters Laboratory (UL®), standards. Glass block are available in 45-, 60- and 90-minute ratings for window assemblies. See page 8 for additional technical information. Visit our website at [www.pittsburghcorning.com](http://www.pittsburghcorning.com) for electronic details.



### PREMIERE SERIES

- Includes the largest selection of patterns and sizes for the utmost in design flexibility.
- All patterns are classified by UL®, for use in 45-minute rated window assemblies.
- All sizes available are rated except 12" x 12" and shapes.
- Nominal face thickness: 0.25"



### THICKSET® 60 Block

- Classified by UL®, for use as 45- or 60-minute rated window assemblies.
- Nominal face thickness: 0.375"



### THICKSET® 90 Block

- Classified by UL®, for use as 45-, 60- or 90-minute rated window assemblies.
- Nominal face thickness: 0.75"



### VISTABRIK® Solid Glass Block

- The ultimate glass block solution, 3 solid inches of glass which resists bullets, fire, noise, and graffiti.
- Classified by UL®, for use as 45-, 60- or 90-minute rated window assemblies.
- Actual face thickness: 3.0"

PITTSBURGH CORNING GLASS BLOCK PRODUCTS

Pattern	Nominal Size <sup>1</sup> (Actual size is 1/4" less than nominal; mm shown is actual)	Weight (lb/ft <sup>2</sup> ) installed with mortar	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 Coef. <sup>5</sup>	Sound Transmission S.T.C.	Solar Heat Gain Coefficient <sup>7</sup>
DECORA®	8" x 8" x 3"	17	0.45	2.22	71		39	.41
	8" x 8" x 4"	21	0.49	2.04	71		39	.41
IceScapes®	8" x 8" x 3"	17	0.45	2.22	71		39	.39
	8" x 8" x 4"	21	0.49	2.04	71		39	.39
<b>Solar Reflective Glass Block</b>								
SRT Clear	190 mm x 190 mm x 95 mm (metric size)	20	0.58	1.72	30	0.55		.40
SRT Wavy	190 mm x 190 mm x 95 mm (metric size)	20	0.57	1.75	30	0.55		.34
<b>THICKSET® Block—Nominal Thickness = 4"; Actual Thickness + 3/8" (98mm)</b>								
THICKSET® 60 Block— DECORA® & VUE®	8" x 8" (197mm)	25	0.51	1.96	VUE®=75 DECORA®=49	0.65	48	.66-.68 <sup>7</sup>
THICKSET® 90 Block— DECORA® & VUE®	8" x 8" (197mm)	30	0.51	1.96	VUE®=70 DECORA®=38	0.65	50	.66-.68 <sup>7</sup>
THICKSET® 90 Block— ENDURA™	8" x 8" (197mm)	30	0.51	1.96	38	0.65	50	.66-.68 <sup>7</sup>
<b>VISTABRIK® Solid Glass Block—See Nominal/Actual Sizes Listed</b>								
VISTABRIK® Solid Glass Block	8" x 8" x 3" Nominal 7 7/8" x 7 7/8" x 3" Actual (194mm x 194mm x 76mm)	40	0.87	1.15	80		53 (NRC=0.05)	.75-.78 <sup>7</sup>
	4" x 8" x 3" Nominal 3 7/8" x 7 7/8" x 3" Actual (92mm x 194mm x 76mm)	40	0.87	1.15	80			.75-.78 <sup>7</sup>
<b>Standard Premiere Series Block—Nominal Thickness = 4"; Actual Thickness + 3/8" (98mm)</b>								
ARGUS®	6" x 6" (146mm)	20	0.51	1.96	75	0.65	37	.66-.68 <sup>7</sup>
	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
	12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68 <sup>7</sup>
ARGUS® Parallel Fluted	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
DECORA®	6" x 6" (146mm)	20	0.51	1.96	75	0.65	37	.66-.68 <sup>7</sup>
	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
	12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68 <sup>7</sup>
	4" x 8" (95 x 197mm)	20	0.51	1.96	75	0.65		.66-.68 <sup>7</sup>
	6" x 8" (146 x 197mm)	20	0.51	1.96	75	0.65		.66-.68 <sup>7</sup>
ESSEX® AA	8" x 8" (197mm)	20	0.51	1.96	50 <sup>4</sup>	0.45 <sup>4</sup>	39	.66-.68 <sup>7</sup>
IceScapes®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
	4" x 8" (95 x 197mm)	20	0.51	1.96	75	0.65		.66-.68 <sup>7</sup>
	6" x 8" (146 x 197mm)	20	0.51	1.96	75	0.65		.66-.68 <sup>7</sup>
	12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68 <sup>7</sup>
SPYRA®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
VUE®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
	12" x 12" (299mm)	20	0.51	1.96	75	0.65	35	.66-.68 <sup>7</sup>
DECORA® "LX" Filter	8" x 8" (197mm)	20	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>	40	.56
	12" x 12" (299mm)	20	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>		.56
<b>Thinline™ Series Block—Nominal Thickness = 3"; Actual Thickness + 3/8" (79mm)</b>								
DECORA®	6" x 6" (146mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	8" x 8" (197mm)	16	0.57	1.75	75	0.65	31 <sup>6</sup>	.66-.68 <sup>7</sup>
	4" x 8" (95 x 197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
IceScapes®	6" x 6" (146mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	8" x 8" (197mm)	16	0.57	1.75	75	0.65	31 <sup>6</sup>	.66-.68 <sup>7</sup>
DELPHI®	6" x 6" (146mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	8" x 8" (197mm)	16	0.57	1.75	75	0.65	31 <sup>6</sup>	.66-.68 <sup>7</sup>
	4" x 8" (95 x 197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
	6" x 8" (146 x 197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
SeaScapes™	8" x 8" (197mm)	16	0.57	1.75	75	0.65		.66-.68 <sup>7</sup>
1/8" FLAT SHEET GLASS COMPARISON (3mm)			1.04	0.96	90	1.00	28	

1 Size: Block are manufactured to a ± 1/16" (2mm) tolerance.  
2 Heat Transmission/Thermal Transmission: Winter night values. To calculate instantaneous heat gain through glass panels, see ASHRAE HANDBOOK OF FUNDAMENTALS, 2005, Section 31.3.

3 Light Transmission: Values ±5%.  
4 Light Transmission/Shading Coefficient: Estimated figures based on accumulated data.

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

6 Sound Transmission: Assembly construction with Kwik'N EZ® Silicone System.  
7 SHGC: Default values as interpreted from International Energy Conservation Code.

# HIGH PERFORMANCE LINE — PITTSBURGH CORNING GLASS BLOCK PRODUCTS

Pittsburgh Corning's High Performance Line of glass block products is comprised of products that offer the highest value, performance features and benefits related to improved safety, energy efficiency, aesthetics and decorative choices.



## INSOLAR™ Low E Glass Block DECORA® and IceScapes® Patterns

A proprietary new high performance glass block that provides improved solar control and energy efficiency. Available in DECORA® and IceScapes® patterns in the 8" x 8" size.



### THICKSET® Block

Cutaways show the greater face thickness of the THICKSET® Series Block. THICKSET® 60 Block on left vs. the THICKSET® 90 Block on right.



### THICKSET® 90 Block DECORA® Pattern

THICKSET® 90 block provides a 90-minute fire rating. The DECORA® pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.



### THICKSET® 90 Block ENDURA™ Pattern

THICKSET® 90 block provides a 90-minute fire rating. The ENDURA™ pattern's narrow flutes provide moderate light transmission/ maximum privacy.



### THICKSET® 90 Block VUE® Pattern

THICKSET® 90 block provides a 90-minute fire rating. The VUE® pattern transmits maximum light and allows ultimate visibility.



### THICKSET® 60 Block DECORA® Pattern

THICKSET® 60 block provides 60-minute fire rating. The DECORA® pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.



### THICKSET® 60 Block VUE® Pattern

THICKSET® 60 block provides 60-minute fire rating. The VUE® pattern transmits maximum light and allows ultimate visibility.



### DECORA® LX Pattern

Fibrous glass insert adds moderate thermal and light characteristics. Maximum privacy. **Please note: The "LX" fibrous glass insert is available in other patterns and sizes by special order. Minimum order quantities apply.**



### HEDRON® LX Corner Block, DECORA® Pattern

Hexagonal corner unit allows you to form 90-degree corners resulting in a gently rounded continuous glass face.



### VISTABRIK® Solid Glass Block

Solid 3" solid glass block. Clear visibility, durable, impact, vandal and aesthetically attractive. Excellent light transmission. Available in 8" x 8" and 4" x 8" sizes, and in 3" x 8" special order.



### VISTABRIK® STIPPLED Solid Glass Block

Solid 3" thickness of glass with a stippled finish to add privacy. Durable, impact, vandal and bullet resistant, low maintenance and aesthetically attractive. Good light transition/ medium privacy. **Special Order.**



### VISTABRIK® Paver

One and a half inches of solid glass. Clear, durable, low maintenance. Excellent light transmission. Horizontal applications only.



### PC® Custom Signature Block

Custom manufactured with your corporate logo or other design pressed into one or both inside surfaces of an eight inch square, standard unit. **Special Order Only.**



### SRT™ Block, Wavy and Clear Patterns – Brown Edge

Features a metal oxide coating on the inside surface of the block which greatly reflects solar energy while reducing the passage of sunlight.



### Colored Glass Blocks

Add color for unlimited design options. Available in Blue, Bronze and Rosa (pink) in the Wave Pattern. Use alone or mix with clear, colorless Pittsburgh Corning Premiere Series glass block.



Pittsburgh Corning's Signature Line of glass block products is comprised of high quality Premiere and Thinline™ Series products and the largest selection of patterns and shapes. This line has become the standard in the industry and provides the most design flexibility in the selection and use of glass block for walls, windows, partitions, and showers in residential and commercial applications.

## PREMIERE SERIES GLASS BLOCK



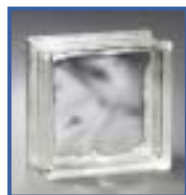
### ARGUS® Pattern

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



### ARGUS® Parallel Fluted Pattern

Rounded parallel flutes on each face diffuse light while allowing maximum light transmission and a medium degree of privacy. Compliments the SPYRA® pattern.



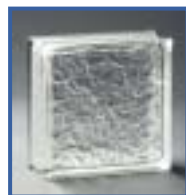
### DECORA® Pattern

The trademark wavy undulations of this pattern provides maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.



### ESSEX® AA Pattern

The fine grid design of the closely spaced ridges in this pattern offers moderate light transmission and a maximum degree of privacy.



### IceScapes® Pattern

Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/medium to maximum privacy.



### SPYRA® Pattern

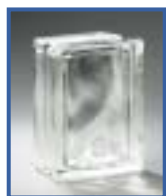
SPYRA® Pattern gives you many options for decorative patterns, such as bold circles, rounded corners and the illusions of waves. Maximum light transmission and minimal privacy.



### VUE® Pattern

Faces are smooth and undistorted to transmit the most light and allow ultimate visibility. This is your best choice for passive solar collection and visual clarity.

## SHAPES AND FINISHING UNITS



### ARQUE® Block DECORA® and IceScapes® Patterns

ARQUE® Block is a brilliant way to create smooth, graceful curves and columns. ARQUE® Block forms a consistent, tight curve ideally suited for columns.



### ENCURVE® Block, DECORA® and IceScapes® Patterns

Arched, soft edges to round out your design options or finish panels. Use with 8" x 8" EndBlock™ Finishing Units for a stepped panel.



### HEDRON® Corner Block DECORA® and IceScapes® Patterns

Hexagonal corner unit allows you to form 90-degree corners resulting in a gently rounded continuous glass face.



### TRIDRON 45° Block® DECORA® and IceScapes® Patterns

The unique shape of this block lets you create everything from 45-degree angles to full circles.



### EndBlock™ Finishing Unit DECORA® and IceScapes® Patterns 6" x 8"

The rounded, finished surface on one edge of these blocks makes them virtually disappear when used vertically or horizontally on the edges of panels, walls or dividers.

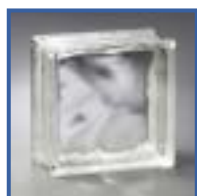


### EndBlock™ Finishing Unit DECORA® and IceScapes® Patterns 8" x 8"

The rounded, finished surface on one edge of these blocks makes them virtually disappear when used vertically or horizontally on the edges of panels, walls or dividers.



## THINLINE™ SERIES GLASS BLOCK



### DECORA® Pattern

The trademark wavy undulations of this pattern provide maximum light transmission with subtle visual distortion. The nondirectional faces make installation quick.



### DELPHI® Pattern

This raised diamond design lends a prismatic effect to the light it transmits. Moderate light transmission and maximum privacy. DELPHI® pattern available in Thinline™ Series only.



### IceScapes® Pattern

Non-directional pattern lets light in without sacrificing privacy. Maximum light transmission/medium to maximum privacy.



### SeaScapes™ Pattern

The three dimensional circles appear to float within the glass block. The pattern lets in light and also provides a degree of privacy.



### EndBlock™ Finishing Unit, DECORA® Pattern

For finishing horizontal or vertical edges of panels. This 4" x 8" size available in Thinline™ Series only.

# FIRE RATINGS

## FIRE RATINGS AND CODE INFORMATION

All sizes (exceptions listed below) of Premiere Series and Thinline™ Series glass blocks 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 blocks have fire ratings of up to 90 minutes, and the THICKSET® 60 and ESSEX® AA Pattern glass blocks have fire ratings of up to 60 minutes, when used as window assemblies and where permitted by code.

### Pittsburgh Corning Glass Block units that are not fire-rated:

- All 12" x 12" sizes
- All DELPHI®, pattern block
- All HEDRON® Corner block, TRIDRON 45° Block® units, EndBlock®, ENCURVE® and ARQUE® finishing units
- All paver units
- VISTABRIK® Corner Block
- All INSOLAR™ Block

### PANEL SIZES AND DIMENSION LIMITATIONS

Pittsburgh Corning Glass Block listed above have been tested and classified by Underwriters Laboratories® (UL®) 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 blocks, corner blocks and the DELPHI® pattern block, all Premiere Series and Thinline™ Series glass blocks in panels up to 120 square feet in masonry walls or 94 square feet in non-masonry walls are classified by Underwriters Laboratories, for use as 45-minute rated window assemblies.
- The Uniform Building Code (U.B.C.) limits the area of 45-minute rated window assemblies to 84 square feet, with no dimension exceeding 12 feet. These panels are usually acceptable as window assemblies for use in fire separation walls that are rated one hour or less.

- THICKSET® 60 Block are listed for use as 45- or 60-minute fire rated window assemblies in panels up to 100 square feet.
- THICKSET® 90 Block and VISTABRIK® Solid Glass Block 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 Pittsburgh Corning 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 PC® 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 Pittsburgh Corning Corporation 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 90-minute rated Pittsburgh Corning 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 Pittsburgh Corning Corporation recommendations.
- Twice the typical thickness (3/4" total) of expansion material is required at head and jamb locations.

### 45-MINUTE RATED CURVED CONSTRUCTION

- The glass blocks 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 listed in the Underwriters Laboratories current issue of the Fire Resistance Directory – Volume 3. A listing of our products can also be viewed on the Underwriters Laboratories Website at [www.ul.com](http://www.ul.com).

- U.L. Classification: R2556 (For Glass Block)
- Underwriters Laboratories of Canada Guide Number 23017 (For Glass Block)
- U.L. Classification: R18572 (For Plastic Spacers)
- In accordance with NFPA 80, Chapter 14

### CITY CODE APPROVALS

- New York City Materials and Equipment Acceptance MEA 406- 90-M. Vol.IV
- Los Angeles Research Report RR-24486
- Dade County Acceptance 06-0809.01 04-0301.01 04-0824.01 05-1107.02
- State of Florida Approvals FL 1363 FL 1366 FL 5357 FL 8039
- Texas Department of Insurance WIN #s 62, 64, and 540

### BUILDING CODE AND NATIONAL STANDARDS REFERENCES:

- The BOCA National Building Code (N.B.C.)
- The Standard Building Code (SBCCI)
- The Uniform Building Code (U.B.C.)
- International Building Code (IBC)
- Canadian Standards Association (CSA) A371-94 "Masonry Construction for Buildings"
- Canadian Standards Association (CSA) S304.1-94 "Masonry Design for Buildings."
- ACI 530/ASCE 5/TMS 402 "Building Code Requirements for Masonry Structures"
- ISO 9001:2000 Certification: Manufacture test and distribution of Pittsburgh Corning Glass Block products.

## PITTSBURGH CORNING GLASS BLOCK WEBSITE

[www.pittsburghcorning.com](http://www.pittsburghcorning.com) features application photos, product information, specifications, installation details, literature, continuing education, case histories, and much more information on how to design with Pittsburgh Corning Glass Block products.



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