

# PREMIERE SERIES GLASS BLOCK

Pittsburgh Corning's Premiere Series Glass Block exhibit a multifaceted character that begins with the transparent/ translucent sparkling beauty of glass itself. The wide range of glass block provide proven performance, and the best selection of types, thickness, sizes, shapes and patterns; plus a variety of installation methods to allow you truly unique executions of your most exciting ideas.... your inspired designs.



**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. Complements the SPYRA® pattern.



**DECORA® Pattern**  
With its trademark wavy undulations, 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

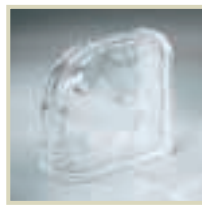


**VUE® Pattern**  
Faces are smooth and undistorted to transmit the most light and allow ultimate visibility. This is your best choice for passive solar collection and visual clarity.

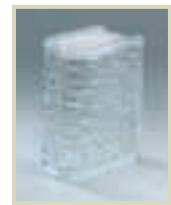
## SHAPES AND FINISHING UNITS



**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.



**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.



**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.

## SPECIALTY GLASS BLOCK



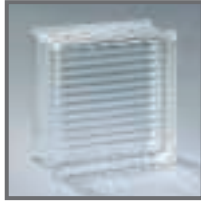
### THICKSET® Block

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 the most 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 the most 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

Three inches of solid glass. Clear visibility, durable, impact, vandal and bullet resistant, low maintenance and aesthetically attractive. Excellent light transmission. Available in 8" x 8", 4" x 8" and 3" x 8" sizes.



### 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.



### VISTABRIK® 45°/90° CORNER Solid Glass Block

Slight radius for corners or angles. Clear visibility, durable, impact, vandal and bullet resistant, low maintenance and aesthetically attractive. Excellent light transmission.



### VISTABRIK® Paver

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



### SRT™ Glass Block Wavy and Clear Patterns

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



### 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**

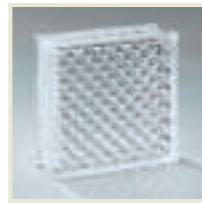
## THINLINE™ SERIES GLASS BLOCK

Thinline™ Series Glass Block are for limited areas in interior and exterior residential applications and light commercial applications.



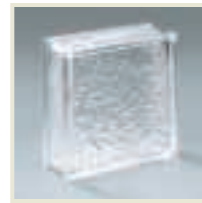
### DECORA® Pattern

With its trademark wavy undulations, this pattern provides 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.



### EndBlock™ Finishing Unit, DECORA® Pattern

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

# PHYSICAL & DESIGN DATA

## PREMIERE SERIES GLASS BLOCK PRODUCTS

Pattern	Nominal Size <sup>1</sup> (mm) (Actual size is 1/4" less than nominal)	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>
<b>Standard Premiere Series Block—Nominal Thickness = 4"; Actual Thickness + 3/4" (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>
SPYRA®	8" x 8" (197mm)	20	0.51	1.96	75	0.65	39	.66-.68 <sup>7</sup>
VUE®	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>
DECORA® "LX" Filter	6" x 6" (146mm)	20	0.48	2.06	50-55 <sup>4</sup>	0.45 <sup>4</sup>		.56
	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>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 + 3/4" (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®	6" x 6" (146mm)	30	0.51	1.96	VUE®=70 DECORA®=38	0.65	50	.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>
	3" x 8" x 3" Nominal 3" x 7 7/8" x 3" Actual (76mm x 194mm x 76mm)	40	0.87	1.15	80			.75-.78 <sup>7</sup>
	(Paver) 8" x 8" x 1 1/2" Nominal 7 7/8" x 7 7/8" x 1 1/2" Actual (76mm x 194mm x 38mm)	N/A	0.87	1.15	80			.75-.78 <sup>7</sup>
	4" x 8" x 3" Nominal 3 3/4" x 7 7/8" x 3" Actual (92mm x 194mm x 76mm)	40	0.87	1.15	80			.75-.78 <sup>7</sup>
STIPPLE Finish	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>
<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>
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, 1997, Section 29.26.

**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.

## INSTALLED PANEL WEIGHT

Refer to Table on page 8 for weight of panels installed with mortar. Glass block panels installed with the KWik'N EZ® Rigid Track Silicone System are up to 25% lighter (weigh 25% less per square foot) than panels installed with mortar. Local building codes should be checked for any limits on panel sizes or installation details.

## 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 provide for building movement and lintel deflection. The compressive strength (for information purposes only) of all hollow glass block is 400 to 600 psi.; of all THICKSET® Series Glass Block is 2500 psi.; and of all VISTABRIK® Series is 80,000 psi.

## THERMAL EXPANSION COEFFICIENT

The thermal expansion coefficient of glass block is  $47 \times 10^{-7} / (^\circ\text{F})$ .

## DETAILED DRAWINGS

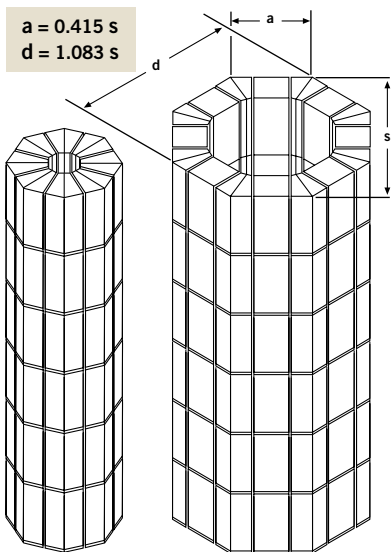
Structural members illustrated on page 14 and other "detail" pages indicate principles of construction. Member sizes should be determined by structural analysis to avoid excessive deflections. Maximum deflection should not exceed L/600.

## PREMIERE SERIES AND Thinline™ SERIES

All glass block illustrated are Premiere Series Glass Block, the 4" nominal thick products. Modify as necessary for Thinline™ Series, the 3" nominal thick units or VISTABRIK® Solid Glass Block, 3" actual thickness. Pittsburgh Corning recommends that the use of the Thinline™ Series units be limited to light commercial and residential applications.

## FINISHING UNITS

FINISHING UNITS					
PREMIERE SERIES					
EndBlock™ Finishing Units	HEDRON® Corner Unit	TRIDRON 45° Block® Unit	ENCURVE® Finishing Unit	ARQUE® Block Unit	THINLINE™ SERIES EndBlock™ Finishing Unit
<p>DECORA® &amp; IceScapes® Patterns 8" High Premiere Series</p>	<p>DECORA® &amp; IceScapes® Patterns 8" High Premiere Series</p>	<p>DECORA® &amp; IceScapes® Patterns 8" High Premiere Series</p>	<p>DECORA® &amp; IceScapes® Patterns 8" Square Premiere Series</p>	<p>DECORA® &amp; IceScapes® Patterns 8" High Premiere Series</p>	<p>DECORA® Pattern 8" High Thinline™ Series Only</p>



Columns can be All-TRIDRON 45° Block® (left) or interspersed with 4" x 8" or 8" x 8" glass block.

NOTE: All mortar joints are 1/4."

## GLASS BLOCK BETWEEN TRIDRON 45° BLOCK®

	a (in.)	s (in.)	d (in.)
None	4.75	11.45	12.40
1 - 4" x 8" x 4"	8.75	21.08	22.83
1 - 6" x 8" x 4"	10.75	25.90	28.05
1 - 8" x 8" x 4"	12.75	30.72	33.27
1 - 4" x 8" x 4" + 1 - 8" x 8" x 4"	16.75	40.36	43.71
2 - 8" x 8" x 4"	20.75	50.00	54.15
1 - 4" x 8" x 4" + 2 - 8" x 8" x 4"	24.75	59.64	64.59
3 - 8" x 8" x 4"	28.75	69.28	75.03

## 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	85	10	15	100	10	10
INTERIOR	250	20	25	150	10	15	150	10	15

A = Area H = Height W = Width

\* Uniform Building Code (UBC) limits exterior height and width to 15 feet.

\*\* All exterior areas and dimensions are based on 20 psf design windload with 2.7 safety factor.

## MORTAR MIX AND ESTIMATING TABLES

An optimum mortar mix for installing Pittsburgh Corning Glass Block is:

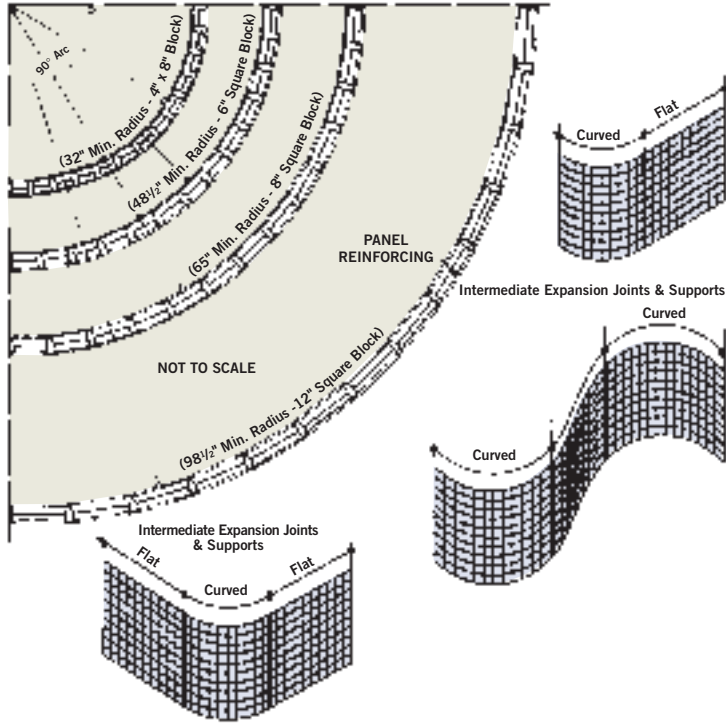
Portland Cement	Lime	Sand
1 Part	1/2 Part	3.4 Parts
1.0 cubic foot	0.5 cubic foot	3.4 cubic feet

## NUMBER OF BLOCK FOR 100 SQ. FT. PANEL

Block Sizes (Nominal)	6"	8"	12"	4" x 8"	6" x 8"
Number of Block	400	225	100	450	300

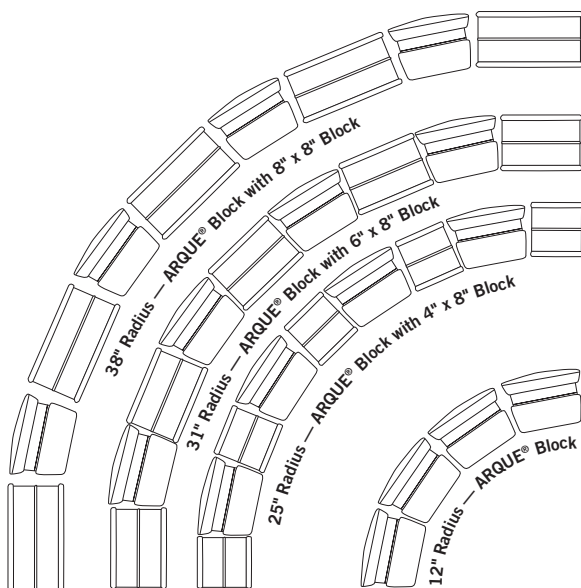
# PHYSICAL & DESIGN DATA

## INSIDE RADIUS MINIMUMS FOR CURVED PANEL CONSTRUCTION



RADIUS MINIMUMS FOR CURVED PANEL CONSTRUCTION				
Block Size	Inside Radius Inches	Number of Blocks in 90° Arc	Vertical Joint Thickness In Inches	
			Inside	Outside
4" x 8"	32	13	1/8	5/8
6" x 6"	48 1/2	13	1/8	5/8
8" x 8"	65	13	1/8	5/8
12" x 12"	98 1/2	13	1/8	5/8

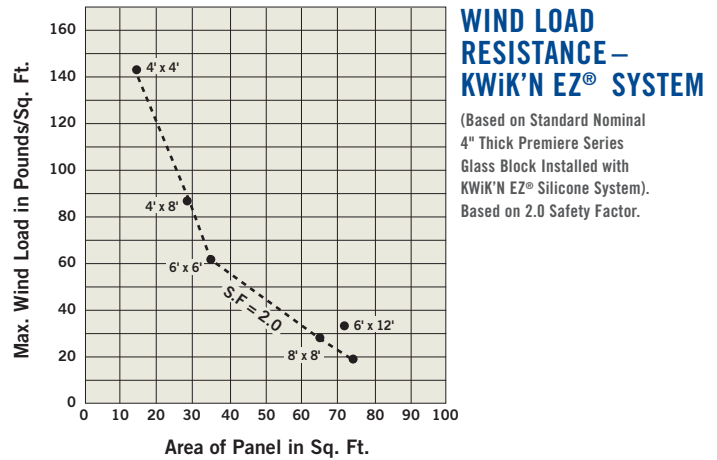
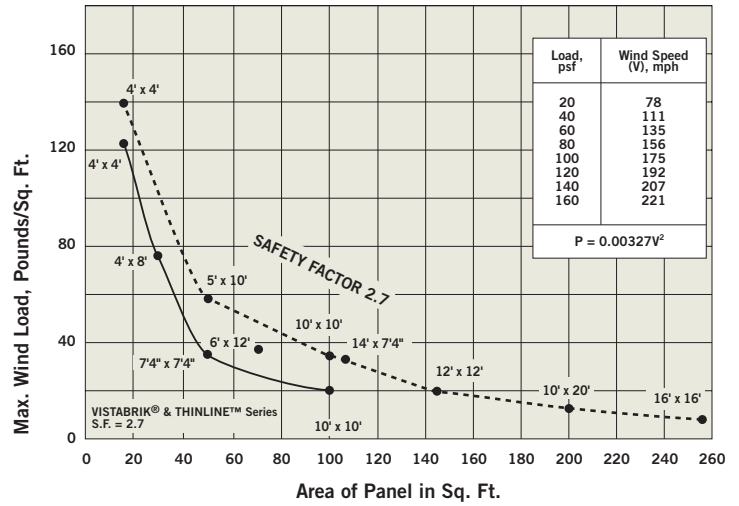
- NOTES:**
- It is suggested that curved areas be separated from flat areas by intermediate expansion joints and supports, as indicated in these drawings.
  - When straight, ladder-type reinforcing is used on curved walls, the innermost parallel wire may be cut periodically and bent to accommodate the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



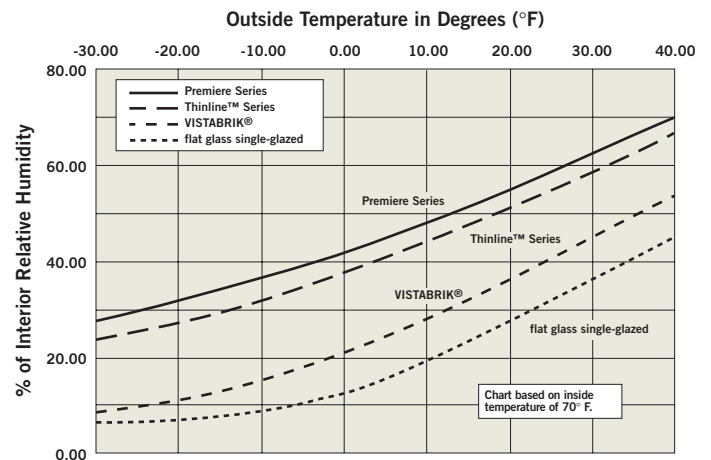
ARQUE® Block used along with other Pittsburgh Corning Block sizes, allows you to form consistent curves of various radii. Radii shown are to inside face of curve.

## WIND LOAD RESISTANCE – MORTAR SYSTEM

(Based on Standard Nominal 4" Thick Premiere Series Glass Block. Installed with mortar. Based on 2.7 Safety Factor)



## RESISTANCE TO SURFACE CONDENSATION



**Example:** At a 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 block. Under the same conditions, condensation will form on a single-glazed flat glass window at 34 °F above zero.