**STEP 1 » BLOCK SELECTION**

**PREMIERE SERIES**
Premiere Series Glass Block is 4" thick (nominal) and has the widest selection of sizes, shapes, and patterns. Premiere Series Glass Block is used with the ProVantage® System and also can be used with Mortar I & II Systems. Ideal for curved, angled, or straight walls.

- Choice of Building Professionals
- Highest Insulation and Sound Transmission Ratings
- Interior Walls up to 250 sq. ft.
- Exterior Walls up to 144 sq. ft.

**THINLINE™ SERIES**
Thinline™ Series Glass Block is 3" thick (nominal) and is an economical choice for many smaller projects. (The ProVantage® System is not compatible with Thinline™ Series blocks.)

- Ideal for Windows and Non-curved Walls
- Exterior Walls up to 85 sq. ft.
- Interior Walls up to 150 sq. ft.
- Mortar Installation Only

**MONARCH SERIES**
Monarch Series Glass Block offers solar reflective and colored glass blocks in blue, bronze and rosa (pink). Use alone or mix with other Premiere Series glass block.

**GLASS BLOCK PROJECT PLANNER**
PLAN YOUR PROJECT » IN 3 EASY STEPS
MATERIALS LIST

<table>
<thead>
<tr>
<th>Material</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glass Block</td>
<td></td>
</tr>
<tr>
<td>Premiere</td>
<td></td>
</tr>
<tr>
<td>Thinline®</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td></td>
</tr>
</tbody>
</table>

FOR ProVantage® INSTALLATION

- Horizontal Spacers
- Vertical Spacers
- HEDRON® Corner Block Spacers
- ARQUE® Block Spacers
- TRIDRON® 45° Block Spacers
- Anchors or Perimeter Channels
- Pittsburgh Glass Block Sealant
- ProVantage® Surface Grout
- ProVantage® Glass Block Sealant
- Mortar (50 lbs.)
- Perimeter Channels (Premiere/Thinline™)
- Perimeter Channel Screws
- 3" recycled tire/grout sponge and cheese cloth.

EXTRA GLASS BLOCK SEALANT
tubes

Tools Required

- Miter saw, metal snips, hand saw, screw driver, razor knife, rubber mallet, four-foot level, caulking gun and rubber gloves.
- For grouted joints only, you need a rubber float, bucket, tile/grout sponge and cheese cloth.

Installation Method for ProVantage® Systems

ProVantage® System utilizes Pittsburgh Corning Perimeter channels to install straight walls in four sided openings.

ProVantage® System is designed for use with Pittsburgh Corning Premiere Series (4” thick nominal) glass block. The installation recommendations are for straight walls framed on all four sides as follows:

- Interior panels – 50 square feet maximum size
- Vertical Spacers
- Expansion Strips
- Panel Anchors
- Panel Anchor Screws
- Panel Reinforcing
- Mortar (50 lbs.)
- Perimeter Channels (Premiere/Thinlin™)
- Perimeter Anchor Screws
- 3" recycled tire/grout sponge and cheese cloth.

ProVantage® System utilizes Pittsburgh Corning perimeter channels to install straight walls in four sided openings.

ProVantage® System is designed for use with Pittsburgh Corning Premiere Series (4” thick nominal) glass block. The installation recommendations are for straight walls on 4-sided openings, and is not recommended for wet environments.

ProVantage® System is designed for use with Pittsburgh Corning Premiere Series (4” thick nominal) glass block. The installation recommendations are for straight, curved or angled walls in two, three or four sided openings as follows:

- Exterior panels – 50 square feet maximum size
- Interior panels – 85 square feet maximum size
- Panel anchors can be finished with ProVantage® Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant. Sealant finish is not recommended for wet environments.

The Mortar I System utilizes Pittsburgh Corning perimeter channels on all four sides. You will also use VeriTru® Spacers and glass block mortar to produce clean, consistent 1/4” joints and a traditional grid look.

The Mortar II System does not use the Pittsburgh Corning perimeter channels but instead utilizes expansion strips, panel reinforcing and panel anchors. You will also use VeriTru® Spacers and glass block mortar to produce clean, consistent 1/4” joints and a traditional grid look.

WHEN TO USE AND LIMITATIONS

The Mortar I System is designed for use with Pittsburgh Corning Premiere Series (4” thick nominal) and Thinline™ (3” thick nominal) Series Glass Block. The installation recommendations are for small residential panels of 25 sq. ft. or less.

- Not for use in constructing curved glass block walls
- Interior and exterior panels must be framed on all four sides

The Mortar II System is designed for use with Pittsburgh Corning Premiere Series (4” thick nominal) and Thinline™ (3” thick nominal) Series Glass Block. The installation recommendations are for interior or exterior residential panels larger than 25 sq. ft. or panels enclosed on three sides.

Panel Size Limitations:
- Premiere Series — Interior (250 sq. ft. max.) and Exterior (144 sq. ft. max.).
- Thinline™ Series — Interior (150 sq. ft. max.) and Exterior (85 sq. ft. max.).

NOTE: All glass block panels are non-load bearing, so adequate provisions must be made for support of construction around the panel.

Photo series 1-5: ProVantage® Glass Block Installation System using HEDRON® Block.
**ProVantage® Glass Block Installation System**

**Straight Wall Components**

- **ProVantage® Vertical Spacer Pack** (Spacers are 7/8" long)
  - 10 Spacers per pack
  - Installs up to 10 – 8" Block

- **ProVantage® Horizontal Spacer** (Spacers are 40" long)

- **Premiere Series Perimeter Channels** (Channels are 48" long)

**Angled and Curved Wall Components**

- **ProVantage® ARQUE® Spacer Pack**
  - With ARQUE® Block Spacers you can create curved walls easily.
  - PACK INCLUDES:
    - 4 ARQUE® Horizontal Spacers
    - 2 ARQUE® Half Horizontal Spacers
    - 7 ARQUE® Vertical Spacers
    - Installs 5 ARQUE® Block

- **ProVantage® HEDRON® Spacer Pack**
  - With HEDRON® Corner Block Spacers you can turn 90° with ease.
  - PACK INCLUDES:
    - 4 HEDRON® Horizontal Spacers
    - 2 HEDRON® Half Horizontal Spacers
    - 10 Flat Vertical Spacers
    - Installs 5 HEDRON® Block

- **ProVantage® TRIDRON® Spacer Pack**
  - With TRIDRON® Block Spacers you can create 45° with ease.
  - PACK INCLUDES:
    - 4 TRIDRON® Horizontal Spacers
    - 2 TRIDRON® Half Horizontal Spacers
    - 10 Flat Vertical Spacers
    - Installs 5 TRIDRON® Block

- **ProVantage® Anchor Pack**
  - 5 Anchors
  - 10 Fasteners
  - 20 Shims per box

**Glass Block Installation System Components Common to Both**

- **ProVantage® Glass Block Surface Grout (White — 15 lb. bucket)**
  - Grout coverage is 80 block per 15 lb. bucket

- **Pittsburgh Corning Glass Block Sealant (Clear — 10 ounce tube)**
  - Silicone coverage is 7 block per 10 ounce tube

**Calculate Number of Blocks:**

Divide the height and width by the nominal dimensions of the glass block you are using.

Example: Using 8" x 8" glass block with a panel height of 80" and a panel width of 64":

Height 80" ÷ 8" = 10 blocks Width 64" ÷ 8" = 8 blocks.

Multiply the number of blocks needed for the height by the number of blocks needed for the width:

10 blocks x 8 blocks = 80 blocks.

**Calculate Amount of Materials:**

- **Straight Walls:** Divide the width of the wall by 40, and then multiply by the number of horizontal joints (Also include the bottom course. For ProVantage® II only!).

- **Vertical Spacers:** Add the number of glass blocks in one row to the total number of glass blocks in the wall. Total number of vertical spacers + 10 = number of Vertical Spacers packages.

- **Wall Anchors:** One anchor for each glass block in one vertical row. Multiply by two if attaching to wall on both sides. Total number of anchors needed ÷ 5 = number of Wall Anchor packages.

- **Perimeter Channels:** Channels must be applied on all four sides of the opening and are available in 48" lengths.

- **Curved and Angled Walls:** Determine the number of spacers needed for the straight section of your wall as noted above.

- **ARQUE® Spacers:** Count the number of ARQUE® blocks in your wall (40 blocks equals 40 spacers).

- **ARQUE® Vertical Spacers:** Add the number of ARQUE® blocks in one course to the total number of ARQUE® blocks in that section of your wall (40 ARQUE® blocks used total plus ten blocks per course equals 50 spacers needed.) — Vertical ARQUE® Spacers are included in ARQUE® Spacer packs.

- **HEDRON® and TRIDRON® Spacers:** Count the number of HEDRON® or TRIDRON® blocks in your wall (40 blocks equals 40 spacers), HEDRON® or TRIDRON® blocks + 5 = number of HEDRON® or TRIDRON® Spacer packages.

- **HEDRON® and TRIDRON® Flat Vertical Spacers:** Add the number of HEDRON® or TRIDRON® blocks in one course to the total number of HEDRON® or TRIDRON® blocks in that section of your wall (40 HEDRON® or TRIDRON® blocks used total plus ten blocks per course equals 50 spacers needed.) HEDRON® and TRIDRON® flat vertical spacers (10) are included in HEDRON® and TRIDRON® Spacer packs.

- **Pittsburgh Corning Glass Block Sealant:** Total number of glass blocks divided by seven = number of tubes of sealant required.

**ProVantage® Glass Block Surface Grout (White):** Total number of glass blocks divided by eighty = number of buckets of grout required.

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**Construction of Straight Walls**

Perimeter Channel may be used instead of wall anchors. If using perimeter channels, use Table 1, to determine rough opening size. For straight walls using wall anchors, use Table 2, to determine rough opening size.

**Table 1. ProVantage® I System**

<table>
<thead>
<tr>
<th>Number of Blocks</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
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<td>16½</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>18</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>15½</td>
<td>23½</td>
<td>31½</td>
</tr>
<tr>
<td>5</td>
<td>19½</td>
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<tr>
<td>12</td>
<td>46½</td>
<td>70½</td>
<td>94½</td>
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**Table 2. ProVantage® II System**

<table>
<thead>
<tr>
<th>Number of Blocks</th>
<th>Rough Opening Width (Inches)</th>
<th>Rough Opening Height (Inches)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>6&quot;</td>
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<td>4</td>
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<td>65½</td>
</tr>
<tr>
<td>12</td>
<td>47½</td>
<td>71½</td>
</tr>
</tbody>
</table>

**Notes:**

- Blocks are available in 4" x 8", 6" x 8" and 8" x 8" sizes. For larger panels add 3½" for each additional 4" wide block... add 5½" for each additional 6" wide block... add 7½" for each additional 8" wide block.
MORTAR INSTALLATION METHODS

MORTAR I

DETERMINE THE ROUGH OPENING:
Add \(\frac{1}{4}\)" to sum of the nominal block sizes for both height and width.

Example: Panel (using 8" x 8" block) is four blocks wide by five blocks high. Rough opening needs to be 32\(\frac{1}{4}\)" wide and 40\(\frac{1}{4}\)" high.

CALCULATE AMOUNT OF MATERIALS:
Glass Blocks: Divide the height and width by the nominal dimension of the glass block you are using.

Example: Using 8" x 8" glass block with a panel height of 48" and a panel width of 32"

Height = 48" ÷ 8" = 6 blocks
Width = 32" ÷ 8" = 4 blocks

Multiply the number of blocks needed for the height by the number of blocks needed for the width.

6 blocks x 4 blocks = 24 blocks.

Expansion Strip: You will need enough to cover both jambs and the head (top of panel). Expansion strips are available in 16" lengths.

VeriTru® Spacers: Number of glass blocks x 1.5

Example: 24 blocks x 1.5 = 36 spacers

Perimeter Channels: Channels must be applied on all four sides of the opening and are available in 48" lengths.

Example: 48" + 48" + 32" + 32" = 160"

160" ÷ 48" = 3.3, or 4 channels

NOTE: For exterior applications, one tube of Pittsburgh Corning Glass Block Sealant for every 30 linear feet of perimeter should be used to seal panel at jambs and head.

MORTAR INSTALLATION ACCESSORIES

VeriTru® Spacers
Speed construction and assure uniform spacing

Perimeter Channels
Rigid edge channels for smaller installations

Panel Reinforcing
Embedded in mortar between courses for added stability

Panel Anchors
Tie glass block panels into surrounding framework when perimeter channels are not used

Expansion Strips
Cushion glass block and allow for expansion and contraction

Glass Block Sealant
Used for exterior applications to seal the perimeter

MORTAR II

DETERMINE THE ROUGH OPENING:
Add \(\frac{1}{4}\)" to sum of the nominal block sizes for both height and width.

Example: Panel (using 8" x 8" block) is four blocks wide by five blocks high. Rough opening needs to be 32\(\frac{1}{4}\)" wide and 40\(\frac{1}{4}\)" high.

CALCULATE AMOUNT OF MATERIALS:
Glass Blocks: Divide the height and width by the nominal dimension of the glass block you are using.

Example: Using 8" x 8" glass block with a panel height of 80" and a panel width of 64"

Height = 80" ÷ 8" = 10 blocks
Width = 64" ÷ 8" = 8 blocks

Multiply the number of blocks needed for the height by the number of blocks needed for the width.

10 blocks x 8 blocks = 80 blocks.

Expansion Strip: You will need enough to cover both jambs and the head (top of panel). Expansion strips are available in 16" lengths.

VeriTru® Spacers: Number of glass blocks x 1.5

Example: 80 blocks x 1.5 = 120 spacers

Panel Reinforcing: Used for the entire width of your opening in every other horizontal mortar joint. Panel reinforcing is available in 36" lengths.

Example: 10 blocks high = 5 rows of panel reinforcing

5 rows x 64" wide = 320"

320" ÷ 36" = 8.8 or 9 pieces of panel reinforcing

Panel Anchors: Installed every other course along the jambs and the head. Panel anchors are available in 16" lengths.

NOTE: All examples are based on panels with 4-sided support. Adjust requirements for interior panels with 3-sided support.

STEP 3 » JOINT FINISHING

ProVantage® METHOD

When using the ProVantage® Glass Block Installation System you have two options for joint finishing. Grout finish for a classic “grid” look or silicone for an “all glass” look. Grout is recommended for use in shower and heavy water exposure applications or for panels not supported on all three sides. Silicone is recommended only for glass block panels supported on all four sides.

GROUT » CLASSIC “GRID” LOOK
Grout Finish (ProVantage® Method)

SILICONE » “ALL GLASS” LOOK
Silicone Finish (ProVantage® Method)

MORTAR I AND II METHODS

Mortar I and Mortar II Systems utilize a traditional installations method using a mortar finish for the classic “grid” look. You can purchase glass block premixed mortar, or you can mix your own using white portland cement, powdered hydrated lime and white sand. Glass block sealant should also be used for exterior applications to seal the perimeter.

MORTAR » CLASSIC “GRID” LOOK
Mortar Finish (Mortar I and Mortar II Methods)