





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

# PLAN YOUR PROJECT » IN 3 EASY STEPS

# **STEP 1 » BLOCK SELECTION**



# **STEP 2 » INSTALLATION METHOD**



# **STEP 3 » JOINT FINISHING**



Silicone » "All Glass" Look » ProVantage® Only

Grout » Classic "Grid" Look





# **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 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.

DECORA® Pattern glass block is still the most popular and, like other select patterns, is available in various sizes. Shown above is DECORA® in 4" x 8", 6" x 8" and 8" x 8" sizes.



ARGUS® Pattern ARGUS® Parallel ESSEX® AA Pattern IceScanes® Pattern SPYRA® Pattern VIIE® Patter Fluted Pattern

#### SHAPES AND FINISHING UNITS ... ALSO AVAILABLE IN IceScapes® PATTERN!





ARQUE® Block. **ENCURVE**<sup>®</sup> EndBlock" DECORA® Pattern Finishing Unit, Finishing Unit, DFCORA® Pattern DECORA® Pattern 6" x 8"

EndBlock™ **HEDRON<sup>®</sup>** Finishing Unit, Corner Block DECORA® Pattern DECORA® Pattern 8" x 8"

TRIDRON 45° Block®. DFCORA® Pattern

# **THINLINE<sup>™</sup> SERIES**

Thinline<sup>™</sup> Series Glass Block is 3" thick (nominal) and is an economical choice for many smaller projects. (The ProVantage<sup>®</sup> System is not compatible with Thinline<sup>™</sup> 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.



Colored Glass Block, Wave Pattern Block Wavy & Clear Patterns



# **STEP 2 » INSTALLATION METHOD**

### **ProVantage® SYSTEMS**

# PROVantage

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

The ProVantage<sup>®</sup> II System uses special wall anchors to install straight. curved or angled walls in two, three or four sided openings,

#### WHEN TO USE AND LIMITATIONS

The ProVantage<sup>®</sup> | 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: » Exterior panels – 50 square feet maximum size

- » Interior panels 85 square feet maximum size
- » Panel joints can be finished with ProVantage® Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant, Sealant finish is not recommended for wet environments

#### The ProVantage<sup>®</sup> II 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 framed on four sides 50 square feet maximum size
- » Interior panels framed on at least three sides 85 square feet maximum size
- » Interior panels framed on two sides -60 square feet maximum size
- » Panel joints can be finished with ProVantage® Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant, Sealant finish can only be used on straight walls in 4-sided openings, and is not recommended for wet environments.

### MORTAR SYSTEMS

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  $\frac{1}{4}$  ioints 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 | System is designed for use with Pittsburgh Corning Premiere (4" thick nominal) and Thinline<sup>™</sup> (3" thick nominal) Series Glass Block. The installation recommendations are for small residential panels of 25 sg. 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 designed for use with Pittsburgh Corning Premiere (4" thick nominal) and Thinline<sup>™</sup> (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<sup>™</sup> 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.

### PROVantage

# **ProVantage® INSTALLATION METHOD**

- » ProVantage® spacers align and hold block in place for fast, easy assembly
- » Silicone securely bonds spacers to blocks
- » Finish joints by applying grout or silicone



1 » Bond the horizontal spacer to the glass block using silicone.



2 » Place the horizontal, vertical and specialty shaped spacers on the silicone to align and keep each row of blocks perfectly in place.



- 3 » The glass blocks are secured to the wall using special wall anchors.
- 4 » Using both the horizontal and vertical spacers, your next row of glass block is ready for installation.



5 » Repeat steps until your project is complete.



ProVantage® Glass Block Installation System using ARQUE® and TRIDRON® Block.

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

# **MATERIALS LIST**

| Glass Block<br>Finishing Units _     | Premiere                            | ☐ Thinline <sup>™</sup> | Size     |  |
|--------------------------------------|-------------------------------------|-------------------------|----------|--|
|                                      |                                     |                         |          |  |
| FOR ProVantage                       | ® INSTALLATION                      |                         | QUANTITY |  |
| Horizontal Space                     | ers                                 |                         | pcs.     |  |
| Vertical Spacers                     |                                     |                         | pkg.     |  |
| HEDRON® Corne                        | r Block Spacers                     |                         | pkg.     |  |
| ARQUE® Block S                       | pacers                              |                         | pkg.     |  |
| rridron® 45° B                       | lock Spacers                        |                         | pkg.     |  |
| Anchors or Perin                     | neter Channels                      |                         | pkg./pcs |  |
| Pittsburgh Corni                     | ng Glass Block Seal                 | ant                     | tubes    |  |
| ProVantage® Sur                      | face Grout                          |                         | bkts.    |  |
| FOR MORTAR IN                        | STALLATION                          |                         | QUANTITY |  |
| Expansion Strips                     | ;                                   |                         | pcs.     |  |
| Panel Anchors                        |                                     |                         | pcs.     |  |
| Panel Anchor Sc<br>(#12 x 1" zinc-p  | rews<br>lated, panhead; 4 pe        | er panel anchor)        |          |  |
| Panel Reinforcin                     | g                                   |                         | pcs.     |  |
| /eriTru® Spacers                     | (Premiere/Thinline                  | <sup>M</sup> )          | bags     |  |
| Mortar (50 lbs.)                     |                                     |                         | bags     |  |
| Perimeter Chanr                      | els (Premiere/Thinli                | ne™)                    | pcs.     |  |
| Perimeter Chanr<br>(#6 x 1" zinc-pla | iel Screws<br>ited, flathead; 3 per | lineal foot)            |          |  |
| EXTRA GLASS BL                       | OCK SEALANT                         |                         | tubes    |  |

### **TOOLS REQUIRED**

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



#### 1-800-624-2120 | www.pittsburghcorning.com

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# PROVantage

#### **ProVantage® GLASS BLOCK INSTALLATION SYSTEM** STRAIGHT WALL COMPONENTS



**ProVantage® Vertical Spacer Pack** (Spacers are 71/4" 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)

#### **ProVantage® GLASS BLOCK INSTALLATION SYSTEM** ANGLED AND CURVED WALL COMPONENTS

ProVantage® ARQUE® Spacer Pack With ARQUE® Block Spacers you can create curved walls easily.

PACK INCLUDES:

- ARQUE<sup>®</sup> Horizontal Spacers
- » 2 ARQUE® Half Horizontal Spacers » 7 ARQUE® Vertical Spacers
- Installs 5 ARQUE<sup>®</sup> Block

#### ProVantage® HEDRON® Spacer Pack



#### With HEDRON® Corner Block Spacers you can turn 90° with ease PACK INCLUDES:

- 4 HEDRON<sup>®</sup> Horizontal Spacers
- » 2 HEDRON® Half Horizontal Spacers
- » 10 Flat Vertical Spacers



- PACK INCLUDES: » 4 TRIDRON<sup>®</sup> Horizontal Spacers » 2 TRIDRON® Half Horizontal Spacers
- 10 Flat Vertical Spacers
- Installs 5 TRIDRON® Block



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

#### **ProVantage® 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  $80" \div 8" = 10$  blocks Width  $64" \div 8" = 8$  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:

Horizontal Spacers: 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  $\div 10 =$  number of Vertical Spacer 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  $\div$  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  $\div$  5 = number of HEDRON<sup>®</sup> or TRIDRON<sup>®</sup> 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<sup>®</sup> and TRIDRON<sup>®</sup> 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.





### 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 SystemPremiere Series Glass Block<br>(Perimeter Channel Construction) – Rough Opening Table |                                       |                                |                                |  |  |
|---|---------------------------------------|--------------------------------|--------------------------------|--|--|
|   | Rough O                               | pening Width and Height        | (Inches)                       |  |  |
| Number<br>of Blocks   | 4"                                    | 6"                             | 8"                             |  |  |
| 1   | <b>4</b> <sup>1</sup> / <sub>4</sub>  | 61/4                           | 81/4                           |  |  |
| 2   | 8 <sup>1</sup> / <sub>8</sub>         | 121/8                          | 16 <sup>1</sup> / <sub>8</sub> |  |  |
| 3   | 12                                    | 18                             | 24                             |  |  |
| 4   | 157/8                                 | 237/8                          | 31 <sup>7</sup> /8             |  |  |
| 5   | 19³/4                                 | 29 <sup>3</sup> / <sub>4</sub> | 39 <sup>3</sup> / <sub>4</sub> |  |  |
| 6   | 235/8                                 | 355/8                          | 475/8                          |  |  |
| 7   | <b>27</b> <sup>1</sup> / <sub>2</sub> | 411/2                          | 55 <sup>1</sup> / <sub>2</sub> |  |  |
| 8   | 313/8                                 | 47 <sup>3</sup> / <sub>8</sub> | 63 <sup>3</sup> / <sub>8</sub> |  |  |
| 9   | 35 <sup>1</sup> / <sub>4</sub>        | 53 <sup>1</sup> / <sub>4</sub> | 711/4                          |  |  |
| 10  | 39 <sup>1</sup> / <sub>8</sub>        | 59 <sup>1</sup> / <sub>8</sub> | 79 <sup>1</sup> / <sub>8</sub> |  |  |
| 11  | 43                                    | 65                             | 87                             |  |  |
| 12  | 467/8                                 | 70 <sup>7</sup> /8             | 947/8                          |  |  |

NOTES: Blocks are available in 4" x 8", 6" x 8" and 8" x 8" sizes. For larger panels add 37/8" for each additional 4" wide block.

add 57/8" for each additional 6" wide block ... add 77/8" for each additional 8" wide block.

| TABLE 2. ProVantage® II System<br>Premiere Series Glass Block<br>(Wall Anchor Construction) – Rough Opening Table |                                |                                |                                |                                      |                                       |                                |
|---|--------------------------------|--------------------------------|--------------------------------|--------------------------------------|---------------------------------------|--------------------------------|
|   | Rough Op                       | pening Width                   | n (Inches)                     | Rough Opening Height (Inches)        |                                       |                                |
| Number<br>of Blocks   | 4"                             | 6"                             | 8"                             | 4"                                   | 6"                                    | 8"                             |
| 1   | 4 <sup>3</sup> / <sub>8</sub>  | 6³/8                           | 8 <sup>3</sup> / <sub>8</sub>  | 4 <sup>3</sup> / <sub>8</sub>        | 6 <sup>3</sup> / <sub>8</sub>         | 8 <sup>3</sup> / <sub>8</sub>  |
| 2   | 81/4                           | 121/4                          | 161/4                          | <b>8</b> <sup>1</sup> / <sub>4</sub> | 121/4                                 | 161/4                          |
| 3   | 12 <sup>1</sup> /8             | 18 <sup>1</sup> / <sub>8</sub> | 24 <sup>1</sup> / <sub>8</sub> | 12 <sup>1</sup> /8                   | 18 <sup>1</sup> / <sub>8</sub>        | 24 <sup>1</sup> / <sub>8</sub> |
| 4   | 16                             | 24                             | 32                             | 16                                   | 24                                    | 32                             |
| 5   | 197/8                          | 297/8                          | 397/8                          | 197/8                                | 297/8                                 | 397/8                          |
| 6   | 23 <sup>3</sup> /4             | 353/4                          | 47 <sup>3</sup> /4             | 23 <sup>3</sup> /4                   | 353/4                                 | 47 <sup>3</sup> /4             |
| 7   | 275/8                          | 415/8                          | 555/8                          | 275/8                                | 415/8                                 | 555/8                          |
| 8   | 31 <sup>1</sup> / <sub>2</sub> | 47 <sup>1</sup> / <sub>2</sub> | 63 <sup>1</sup> / <sub>2</sub> | 31 <sup>1</sup> / <sub>2</sub>       | <b>47</b> <sup>1</sup> / <sub>2</sub> | 63 <sup>1</sup> / <sub>2</sub> |
| 9   | 35³/8                          | 53³/s                          | 713/8                          | 35³/8                                | 53³/8                                 | 71 <sup>3</sup> /8             |
| 10  | 391/4                          | 59 <sup>1</sup> / <sub>4</sub> | 79 <sup>1</sup> / <sub>4</sub> | 39³/ <sub>8</sub>                    | 59 <sup>3</sup> /8                    | 79 <sup>3</sup> / <sub>8</sub> |
| 11  | 43 <sup>1</sup> / <sub>8</sub> | 65 <sup>1</sup> / <sub>8</sub> | 87 <sup>1</sup> / <sub>8</sub> | 43 <sup>1</sup> / <sub>4</sub>       | 65 <sup>1</sup> / <sub>4</sub>        | 871/4                          |
| 12  | 47                             | 71                             | 95                             | 47 <sup>1</sup> / <sub>8</sub>       | 71 <sup>1</sup> /8                    | 95 <sup>1</sup> /8             |

NOTES: Blocks are available in 4" x 8", 6" x 8" and 8" x 8" sizes.

For larger panels add 37/8" for each additional 4" wide block.. add  $5^{7}/8^{"}$  for each additional 6" wide block... add  $7^{7}/8^{"}$  for each additional 8" wide block.



00°

45°

- Installs 5 HEDRON<sup>®</sup> Block





#### MORTAR INSTALLATION METHODS

# MORTAR I

#### **DETERMINE THE ROUGH OPENING:**

Add 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  $32^{1}/4^{"}$  wide and  $40^{1}/4^{"}$  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 =  $48" \div 8" = 6$  blocks Width =  $32" \div 8" = 4$  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 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" $160" \div 48" = 3.3$ , or 4 channels

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

### MORTAR INSTALLATION ACCESSORIES



VeriTru® Spacers **Perimeter Channels** Speed construction and Rigid edge channels for assure uniform spacing smaller installations



**Panel Reinforcing** 

Embedded in mortar

between courses for

added stability

#### MORTAR INSTALLATION METHODS



#### CALCULATE AMOUNT OF MATERIALS:

Add 1/2" to sum of the nominal block

is four blocks wide by five blocks

high. Rough opening needs to be

sizes for both height and width.

321/2" wide and 401/2" high.

MORTAR II

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  $80" \div 8" = 10$  blocks Width  $64" \div 8" = 8$  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"  $320" \div 36" + 8.8$  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.



#### **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

# **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 | AND || 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)



# PITTSBURGH CORNING ProVantage<sup>®</sup> Glass Block Installation System

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#### Pittsburgh Corning ProVantage<sup>®</sup> Glass Block Installation System Assembly Instructions

#### Introduction:

The ProVantage<sup>®</sup> Glass Block Installation System is the easiest way to install Pittsburgh Corning Premiere Series (4" thick) Glass Block, and get professional results. There are two methods of installation -ProVantage<sup>®</sup> I and ProVantage<sup>®</sup> II. Here is additional information about each method.

### ProVantage® I: (page 3)

- This method is used to install straight walls in 4-sided openings.
- In this method, glass block panels are installed in perimeter channel.
- The maximum opening size for exterior panels is 50 square feet.
- The maximum opening size for interior panels is 85 square feet.
- The joints of these panels can be finished with ProVantage<sup>®</sup> Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant. Sealant finishing is not recommended for wet environments.

# ProVantage® II: (page 12)

- This method is used to install straight, curved or angled walls in 2, 3 or 4 sided openings.
- In this method, glass block panels are secured to the wall using special wall anchors.
- The maximum opening size for 4 sided exterior panels is 50 sq. ft.
- The maximum opening size for interior panels framed on at least 3 sides is 85 sq. ft.
- Interior panels framed on 2 sides can be a maximum of 60 sq. ft.
- The joints of these panels can be finished with ProVantage<sup>®</sup> Glass Block Surface Grout or Pittsburgh Corning Glass Block Sealant. Sealant finish can only be used on straight walls in 4-sided openings, and is not recommended for wet environments.

Before you begin installing your glass blocks, decide which installation method and joint finish option is right for your project.

The materials required for ProVantage<sup>®</sup> glass block installation are:

- 1. Pittsburgh Corning Premiere Series (4" thick) Glass Block
- 2. Perimeter Channel (ProVantage® I installation only)
- 3. ProVantage® Glass Block Installation System:
  - Horizontal Spacers
  - Vertical Spacers
  - Anchors (packaged with fasteners and shims – ProVantage<sup>®</sup> II installation system only)
  - Shaped Spacers (ARQUE<sup>®</sup>, HEDRON<sup>®</sup>, TRIDRON<sup>®</sup> as needed)
  - Pittsburgh Corning Glass Block Sealant
  - ProVantage<sup>®</sup> Glass Block Surface Grout (grout finish only)
- 4. Grout Sealer (grout finish only)
- 5. #6 x 1" Flat Head Galvanized Screws (ProVantage<sup>®</sup> I installation only)
- White Touch-up Paint (ProVantage<sup>®</sup> I installation only)

The tools required for the ProVantage<sup>®</sup> glass block installation system are a miter saw or miter box, metal snips, hand saw, utility knife, screw gun, screwdriver, 4' level, small level, tape measure, caulk gun, rubber mallet, rubber gloves, spoon shaped finishing tool.

For Grout Finishing you will also need a rubber float, bucket, tile/grout sponge, cheesecloth, small paint brush.

# ProVantage® I

# 1. Prepare The Opening Or Curb

A. Make sure the opening is the correct size. Use the table below to find the correct dimensions for a straight wall with two jambs using channels.



ProVantage<sup>®</sup> I Perimeter Channel Construction Using 8" High Glass Block

|                     | Rough Opening Width and Height (Inches) |        |        |  |  |  |
|---------------------|---|--------|--------|--|--|--|
| Number<br>of Blocks | 4"                                      | 6"     | 8"     |  |  |  |
| 1                   | 4-1/4                                   | 6-1/4  | 8-1/4  |  |  |  |
| 2                   | 8-1/8                                   | 12-1/8 | 16-1/8 |  |  |  |
| 3                   | 12                                      | 18     | 24     |  |  |  |
| 4                   | 15-7/8                                  | 23-7/8 | 31-7/8 |  |  |  |
| 5                   | 19-3/4                                  | 29-3/4 | 39-3/4 |  |  |  |
| 6                   | 23-5/8                                  | 35-5/8 | 47-5/8 |  |  |  |
| 7                   | 27-1/2                                  | 41-1/2 | 55-1/2 |  |  |  |
| 8                   | 31-3/8                                  | 47-3/8 | 63-3/8 |  |  |  |
| 9                   | 35-1/4                                  | 53-1/4 | 71-1/4 |  |  |  |
| 10                  | 39-1/8                                  | 59-1/8 | 79-1/8 |  |  |  |
| 11                  | 43                                      | 65     | 87     |  |  |  |
| 12                  | 46-7/8                                  | 70-7/8 | 94-7/8 |  |  |  |

Note: Blocks are available in 4" x 8", 6" x 8", and 8" x 8" sizes For larger panels

add 3-7/8" for each additional 4" wide block...

add 5-7/8" for each additional 6" wide block...

add 7-7/8" for each additonal 8" block.

B. Use a level to make sure the opening is level and plumb.



C. Measure the opening diagonally from corner to corner in both directions, and compare the dimensions to check for squareness. These dimensions should be equal within 1/8".

Note: If there are any problems with the opening or curb, adjust it before proceeding.

### 2. Install Perimeter Channel

- A. Cut the channel to fit the perimeter of the opening. The channel ends may be cut straight or mitered.
  - a. If cutting the ends straight:
    - Cut the side channels to the height of the opening.
    - Cut the top and bottom channels the width of the opening minus 1-1/2" so they will fit between the side channels.
  - b. If mitering the ends, make all cuts at a 45° angle.



B. Cut the top channel in half lengthwise with a utility knife. Score the center groove with the knife and break the channel in half.

Note: Cutting the top channel in half will allow the top row of blocks to be installed.

- C. Install the bottom channel:
  - The channel may be installed in the center of the opening, or flush with the interior or exterior side of the opening.
  - Attach the channel to the opening by inserting #6 x 1" flat head galvanized screws through the predrilled holes in the channel. Insert two screws in each end of the channel.

Note: If the predrilled holes at the ends were trimmed off when cutting the channel to length. drill new ones at the ends of the cut piece.



D. Install the side

channel.

channels in the same manner making sure they are plumb before attaching with screws.

- E. Install the top channel:
  - Place the half channel in the top of the opening making sure it is aligned with the side channels.
  - · Attach the channel to the opening by inserting #6 x 1" flat head galvanized screws through the predrilled holes in the channel. Insert a screw at each end of the

Note: If the predrilled hole at the end was trimmed off when cutting the channel to length, drill a new one at the end of the cut piece.

F. Paint all of the screw heads white to reduce their visibility.

### 3. Test Fit The First Row

A. Place a glass block in the side channel and slide it into the bottom channel. Make sure the block is completely seated into both channels.



last block into the side channel and slide it into the bottom channel. Install the last vertical spacer.

- E. Check to make sure all the vertical spacers are straight and the glass blocks are aligned with each other.
- F. Remove the first row.

### 4. Install The First Row

- A. Open the sealant as instructed on the tube. Cut the nozzle at a 45° angle at the 1/4" mark.
- B. One tube of sealant will install 7 blocks. Sealant will skin over in 15-17 minutes. Do not apply sealant to more blocks than can be installed in 10 minutes.

- C. In the bottom channel apply two beads of sealant the full length of the channel a 1/4" in from each side.
- D. Place a glass block in the side channel and slide it into the bottom channel.
- E. Apply four 1/2" diameter dabs of sealant to the side of a block behind the raised edge, 1/2" in from each corner.
- F. Press a vertical spacer into place next to the block.
- G. Apply four 1/2" diameter dabs of sealant to the vertical spacer, 1/2" in from each corner.
- H. Insert the next block tight against the vertical spacer.



 Continue inserting spacers and blocks in this manner to complete the row, but do not apply sealant to the side of the last installed spacer. Insert the last block in the side channel and slide it into the bottom channel.



- K. Apply two 1/4" beads of sealant to the top of the row of blocks just behind the raised edges.
- L. Place a horizontal spacer on top of the first row of blocks. If more than one section of horizontal spacer is required, be sure to lay them end to end with the joint directly above a vertical spacer. Stagger these joints on each following row.
- M. Remove any excess sealant. If necessary, adjust the size of the sealant beads to prevent squeeze out on the following rows. The joint areas must be kept clean of sealant.

# 5 Install The Second Through Next To Last Row

A. Line up your second row

of glass blocks next to your opening. Apply two 1/4" beads of sealant to the top of the blocks, just behind the raised edges. Always apply sealant to the block, not the horizontal spacer. These blocks will be turned over when installed so the sealant will contact the horizontal spacer.

- B. Install the second row:
  - Start the row from the opposite end. For example, if you installed the first row from left to right, install the second from right to left.
  - Install the blocks sealant side down.
  - Install vertical spacers with sealant as illustrated in the first row, except for the last installed vertical spacer.



C. Install the remaining rows in this manner until you reach the last row. Check each row for alignment vertically and horizontally.

# 6. Install The Last Row

- A. Line up your last row of glass blocks next to your opening. Apply two 1/4" beads of sealant to the top of the blocks, just behind the raised edges.
- B. Apply a 1/4" bead of sealant horizontally along the top inside leg of the half channel at the top of the opening, where the faces of the blocks will contact the channel.



- C. Slide one block with sealant applied into the right jamb and one block into the left jamb.
- D. Install the remaining blocks in the same manner as before, except do not apply sealant in the last vertical joint. Insert the last spacer after installing the last block.



E. Apply a 1/4" bead of sealant horizontally across the top of the opening 1/2" from the face of the glass blocks. This sealant line will be used to secure the second half of the top channel.



F. Apply a 1/4" bead of sealant along the top inside leg of the second half channel.



- G. Slide the half channel into place between the blocks and the top of the opening. If necessary, temporarily apply a piece of tape to the channel to hold it in place until the sealant sets.
- H. Wait 24 hours before finishing the joints to allow the sealant to cure.

# ProVantage® II

# 1. Prepare The Opening Or Curb

A. Make sure the opening is the correct size. Use the table below to find the correct dimensions for a straight wall with two jambs.



SS.

#### ProVantage<sup>®</sup> II Wall Anchor Construction Using 8" High Glass Block

|                     | Rough Opening Width (Inches) |        |        | Rough Opening Height (Inches) |        |        |
|---------------------|------------------------------|--------|--------|-------------------------------|--------|--------|
| Number<br>of Blocks | 4"                           | 6"     | 8"     | 4"                            | 6"     | 8"     |
| 1                   | 4-3/8                        | 6-3/8  | 8-3/8  | 4-3/8                         | 6-3/8  | 8-3/8  |
| 2                   | 8-1/4                        | 12-1/4 | 16-1/4 | 8-1/4                         | 12-1/4 | 16-1/4 |
| 3                   | 12-1/8                       | 18-1/8 | 24-1/8 | 12-1/8                        | 18-1/8 | 24-1/8 |
| 4                   | 16                           | 24     | 32     | 16                            | 24     | 32     |
| 5                   | 19-7/8                       | 29-7/8 | 39-7/8 | 19-7/8                        | 29-7/8 | 39-7/8 |
| 6                   | 23-3/4                       | 35-3/4 | 47-3/4 | 23-3/4                        | 35-3/4 | 47-3/4 |
| 7                   | 27-5/8                       | 41-5/8 | 55-5/8 | 27-5/8                        | 41-5/8 | 55-5/8 |
| 8                   | 31-1/2                       | 47-1/2 | 63-1/2 | 31-1/2                        | 47-1/2 | 63-1/2 |
| 9                   | 35-3/8                       | 53-3/8 | 71-3/8 | 35-3/8                        | 53-3/8 | 71-3/8 |
| 10                  | 39-1/4                       | 59-1/4 | 79-1/4 | 39-3/8                        | 59-3/8 | 79-3/8 |
| 11                  | 43-1/8                       | 65-1/8 | 87-1/8 | 43-1/4                        | 65-1/4 | 87-1/4 |
| 12                  | 47                           | 71     | 95     | 47-1/8                        | 71-1/8 | 95-1/8 |

Note: Blocks are available in 4" x 8", 6" x 8", and 8" x 8" sizes

For larger panels

add 3-7/8" for each additional 4" wide block ...

add 5-7/8" for each additional 6" wide block ...

add 7-7/8" for each additonal 8" block.

- B. For walls with curves and/or angles it is recommended that you layout your wall before constructing a curb.
- C. Make sure the curved and/or angled sections of your opening or curb are configured correctly.



- D. The curb must be as wide as, or wider than, the glass block thickness (4" or wider).
- E. Apply finish material to the curb. The curb will be visible through the glass blocks. If installing the glass blocks in a wet environment, take stepsto ensure that the curb is waterproof.
  - (1F)
- F. Use a level to make sure the opening is level and plumb.
- G. If your project has 3 or

4 sides, measure diagonally from corner to corner in both directions and compare the dimensions to check for squareness. These dimensions should be equal within 1/8".

H. If there are any problems with the opening or curb, adjust it before proceeding.

### 2. Test Fit The First Row

- A. Cut horizontal spacers for straight sections of the wall.
  - a. For straight walls between two jambs or one jamb and a shaped block, cut the horizontal spacer 1/4" shorter than the nominal dimension.



Note: If it is necessary to have a joint in the horizontal spacer, to extend it to fit the width of the section, make sure the joint will align with a vertical spacer. Stagger these joints on each following row.

b. For straight sections between one jamb and an EndBlock<sup>™</sup>, cut the horizontal spacer 1" shorter than the nominal dimension.



c. For straight sections between a shaped block and an EndBlock<sup>™</sup>, cut the horizontal spacer 3/4" shorter than the nominal dimension.



d. For EndBlock<sup>™</sup>, trim the end of the spacer to fit the shape by cutting the two corners at a 45° angle 3/4" from each corner.



- B. Insert an anchor into the ends of the horizontal spacers where they meet a jamb.
- C. Place the

spacer in the bottom of the opening, centered in the section. DO NOT install with screws.

- D. Curved wall sections:
  - Remove the barbed tabs from a half ARQUE<sup>®</sup> horizontal spacer.
  - Place the spacer in the bottom of the opening, centered under the ARQUE<sup>®</sup> block location. There should be a 1/2" tapered to 1/4" gap between straight sections of spacer and the shaped spacer.



- E. 90° angled wall sections:
  - Remove the barbed tabs from a half HEDRON<sup>®</sup> horizontal spacer.
  - Place the spacer in the bottom of the opening, centered under the HEDRON<sup>®</sup> block location. There should be a 1/2" gap between straight sections of spacer and the shaped spacer.



- F. 45° angled wall sections:
  - Remove the barbed tabs from a half TRIDRON<sup>®</sup> horizontal spacer.
  - Place the spacer in the bottom of the opening, centered under the TRIDRON<sup>®</sup> block location. There should be a 1/2" gap between straight sections of spacer and the shaped spacer.



G. Install the first row of blocks and vertical spacers, starting with a vertical spacer in the jamb.



H. There are special vertical spacers for shaped blocks. Be sure to insert these spacers before, between and after shaped blocks.



 The vertical spacers for HEDRON<sup>®</sup> and TRIDRON<sup>®</sup> blocks are flat, the spacers for ARQUE<sup>®</sup> blocks are tapered. The smaller end is placed at the back of the ARQUE<sup>®</sup> block. The appropriate vertical spacers are packaged with the shaped horizontal spacers.



J. If your project does not have a jamb on both ends, you may need to temporarily prop a 2 x 4 stud at the open end of the wall. Make sure the stud is plumb. This stud will serve as a plumb point for you to follow as you set the blocks.



- K. Check the first row for level lengthwise and crosswise. Make sure the blocks are straight and plumb.
- L. If necessary, insert shims under the horizontal spacers to level the row. Use a flat blade screwdriver to lift the horizontal spacer as you insert shims.

M. Place a horizontal spacer with anchor inserted into the ends, on top of the first row.



N. Mark the location of the anchor V notch on the jamb. If your wall

has two jambs, mark the anchor locations on both jambs. These marks will be used to draw a plumb line on the jambs.

- O. Remove the top horizontal spacer, blocks and vertical spacers, being careful not to disturb the bottom horizontal spacer or shims.
- P. Trace the outline of the horizontal spacers and mark the shim locations.

Q. Using a level, draw a plumb line on the jambs the height of the panel, starting in the V notch of the anchor. This will be the center line for all the anchors.



#### 3. Install The First Row Straight sections:

- A. Apply two 1/4" beads of sealant to the curb, 1/4" inside the traced outline of the horizontal spacers.
- B. Replace shims in the marked locations.

C. Reinstall the bottom horizontal spacer, with anchor inserted, pressing it down into the sealant. Do not attach the anchor with screws.



D. Line up the blocks

that will be installed on top of the horizontal spacer. Apply two 1/4" beads of sealant across the top of the blocks, just behind the raised edges. These blocks will be turned over when installed so the



- E. Install the first glass block and vertical spacer.
  - Apply four 1/2" dabs of sealant to a vertical spacer, 1/2" from each corner.
  - Press the vertical spacer (sealant towards the anchor) into place over the anchor.
  - Apply four 1/2" dabs of sealant to the vertical spacer, 1/2" in from each corner.
  - Install the first block with the sealant beads down on the horizontal spacer.
    Push the block firmly against the jamb and base.



F. Apply four 1/2" dabs of sealant to the side of the previously installed block, 1/2" in from each corner. Press a vertical spacer into

place on the sealant dabs.

G. Apply four 1/2" dabs of sealant to the vertical spacer, 1/2" in from each corner. Install the next block with the sealant beads down.



H. Continue installing blocks

and vertical spacers in this manner until you reach the last slot in the straight section. DO NOT apply sealant to the side of the last block that meets a jamb or shaped block.

 If your project is a straight wall with two jambs, complete the first row by inserting a vertical spacer, with no sealant applied, between the last block and the jamb.



J. Check the first row for level lengthwise and crosswise, and adjust shims as needed.



K. If your project has shaped blocks, continue with Step L to complete the first row.

#### HEDRON®, TRIDRON® and ARQUE® blocks:

L. Apply four 1/2" dabs of sealant to the side of the previously installed block that faces the shaped block, 1/2" in from each corner.



- M. Press an appropriate vertical spacer into place on the side of the block. Remember, there are special vertical spacers for use with shaped blocks. The vertical spacers are packaged with the shaped horizontal spacers for each block.
- N. Apply a 1/4" bead of sealant around the raised impression of the shaped, half horizontal spacer, and attach it to the bottom of the shaped block.



- O. Apply a 1/4" bead of sealant around the inside perimeter of the traced outline of the half spacer.
- P. Apply four 1/2" dabs of sealant to the vertical spacer facing the shaped block, 1/2" from each corner.

- Q. Install the shaped block with the half horizontal spacer down.
- R. Apply four 1/2" dabs of sealant to the side of the shaped block, 1/2" from each corner, and press a special vertical spacer into place.



- S. Install the remaining horizontal spacers, blocks and vertical spacers to complete the first row.
- T. Make sure the first row is straight, plumb, and level lengthwise and crosswise. Insert or adjust shims as needed.
- U. If you have propped a temporary 2 x 4 at the end of your project, make sure it is plumb, and the blocks are aligned correctly.
- V. If your project has shaped blocks, assemble the horizontal spacers that fit on top of the first row by inserting the barbed tabs of the shaped spacers into the slots in the straight spacers or adjoining shaped spacers.

W.Insert an anchor into the end of the horizontal spacer where it meets the jamb and test fit the assembled



spacers on top of the first row of blocks. Adjust the horizontal spacers to fit firmly on top of each block.

# 4. Install The Remaining Rows

A. Apply two 1/4" beads of sealant on top of the straight sections of the previous row of blocks, just behind



the raised edges. If your project has shaped blocks, apply a 1/4" bead of sealant around the top perimeter of the shaped blocks in the previous row.

- B. Install the horizontal spacers, with anchors inserted in each end that contacts a jamb, on top of the blocks. Make sure the spacers fit firmly on the glass blocks. Press the spacer down onto the sealant.
- C. Align the V notch in the anchor with the plumb line drawn on the jamb, and



attach the anchor using the screws provided in the anchor pack. If your project has two jambs,

be sure to attach the anchors at each end.

D. Remove any excess sealant from the horizontal and vertical joints. Adjust the size of sealant beads to prevent squeeze out (keep joint area clean of sealant). Do not change the location of the beads of sealant.



#### Straight sections:

- E. Line up the blocks that will be installed on top of the horizontal spacer and apply two 1/4" beads of sealant across the top of the blocks, just behind the raised edges.
- F. Install the glass blocks and vertical spacers. If your project has two jambs, start at the opposite jamb as the previous row.
  - Apply four 1/2" dabs of sealant to a vertical spacer, 1/2" from each corner, and press it into place over the anchor.
  - Apply four 1/2" dabs of sealant to the vertical spacer, 1/2" in from each corner.
  - Install a block with the sealant beads down on the horizontal spacer, pressing it firmly against the jamb.
  - Apply four 1/2" dabs of sealant to the side of the block 1/2" from each corner, and press a vertical spacer into place.



G. Continue installing blocks and vertical spacers in this manner until you reach the last slot in the straight section. Do not apply sealant to the side of the last block. This is the side of the block that meets the jamb or shaped block. If your project has shaped blocks, skip to Step M.

#### Straight walls with 2 jambs:

- H. Complete the row by inserting a vertical spacer, with no sealant applied, between the last block and the jamb.
- I. Check the row for level lengthwise and crosswise, and adjust, as needed. Repeat Steps 4A - 4H to install the remaining rows.

J. Once you have installed the top row, insert a horizontal spacer

between the top of the blocks and the framed opening, if space permits.



- K. Check the wall for straight and plumb one more time. If necessary, use a rubber mallet to gently tap the wall into alignment.
- L. Let the sealant dry overnight before finishing the joints.

#### HEDRON®, TRIDRON® and ARQUE® blocks:

M. Apply four 1/2" dabs of sealant to the side of the previously installed block, 1/2" from each corner.



- N. Press a special vertical spacer into place on the side of the block. Remember, there are special vertical spacers for use with shaped blocks.
- O. Apply four 1/2" dabs of sealant to the special vertical spacer.



P. Apply a 1/4" bead of sealant around the top perimeter of the shaped block and install it sealant side down on top of the spacer.



- Q. If another shaped block is next, install it in the same manner.
- R. Install the remaining blocks and vertical spacers in the row. Make sure you insert special vertical spacers before, between and after shaped blocks.
  - S. Make sure the row is straight, plumb, and level lengthwise and crosswise. Adjust shims as needed.
  - T. If you have propped a temporary 2 x 4 at the end of your wall, make sure it is plumb, and the blocks are aligned correctly.
  - U. Install the remaining rows in the same manner.
  - V. Once all components are installed, check the wall for straight, plumb and level one more time. If necessary, use a rubber mallet to gently tap the wall into alignment.
  - W.Let the sealant dry overnight before finishing the joints.
  - X. After the sealant is dry, use long nose pliers to remove shims, and fill the spaces with sealant.

#### **Grout Finishing** <u>IMPORTANT:</u> The ProVantage<sup>®</sup> Surface Grout was designed and tested for this application - DO NOT SUBSTITUTE!



<u>CAUTION:</u> Avoid contact with skin. Safety glasses and impervious gloves are recommended to minimize skin and eye contact.

Do not finish the joints until sealant has cured for 24 hours. If you installed a temporary 2 x 4 stud at the open end of your project, remove it before finishing the joints.

- A. Remove any sealant squeezed out from the joints with a utility knife.
- B. Mix a half bag of grout according to the directions on the bucket. This will grout approximately 40 blocks.
- C. Let the mixture set for 5-10 minutes after mixing.
- D. Spread the grout using a rubber float, pressing the grout into the joints. Be sure to push grout in from multiple directions to ensure the joints are fully packed. Be careful not to move the glass blocks while applying grout. The wall will be a bit flexible until the grout has cured.



E. Use a damp tile sponge and clean water to wipe off excess grout. Wipe in multiple directions, diagonally across the blocks to prevent removing grout from the joints. Rinse the sponge frequently.

- F. Let the grout set for 15 minutes, then wipe it again using clean water.
- G. Let the grout cure for 4 hours, then use cheesecloth to polish any film off the blocks.
- H. Apply sealer to the grout lines with a paint brush. Immediately wipe sealer off glass surfaces to prevent it from adhering to the glass.



- I. Apply a second coat of sealer once the first coat is dry.
- J. After the grout has cured for 72 hours, caulk all perimeter joints with a bead of sealant.

# Sealant Finishing



<u>IMPORTANT:</u> Not recommended for shower applications.

<u>CAUTION:</u> Avoid contact with skin. Safety glasses and impervious gloves are recommended to minimize skin and eye contact. Provide sufficient mechanical ventilation.

Do not finish the joints until sealant has cured for 24 hours. If you installed a temporary 2 x 4 stud at the open end of your project, remove it before finishing the joints.

#### Note: If you are installing blocks in a moist environment or if your wall is not framed on all four sides, grout finish is recommended.

- A. Remove any sealant squeezed out from the joints with a utility knife.
- B. Open the sealant as instructed on the tube. Coverage rate is one tube per 16 blocks. Do not seal more joints than you can tool in 15 minutes.

C. Seal the horizontal joints first by placing the nozzle of the tube in the joint at the perimeter on a 45° angle. Pull the tube along the joint while laying a bead of sealant. Slightly overfill the joints.



- D. Push the spoon shaped finishing tool over the joints at a 45° angle to collect the excess sealant and seal the joint. Periodically wipe the sealant from the finishing tool.
- E. Seal the vertical joints in the same manner. Carefully work the joint intersections to create a smooth finish.
- F. Let the sealant cure for 48 hours before putting any stress on the panel.
- G. Seal the perimeter joints with sealant.

### Maintenance

An important part of the functional beauty of Pittsburgh Corning Glass Block products is that they are virtually maintenance free! There's nothing to rot, rust, peel or paint. All that is needed is an occasional wiping with a damp, soft cloth on interior panels or a hosing on exterior panels, With minimal attention, your Pittsburgh Corning Glass Block will remain sparkling and beautiful for years!

### If you need assistance

We hope these instructions are clear and answer your questions about the installation of Pittsburgh Corning Premiere Series Glass Blocks and Finishing Units with the ProVantage<sup>®</sup> Glass Block Installation System. For additional information on Pittsburgh Corning Glass Block visit our website at www.pittsburghcorning.com or call 1-800-624-2120.

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# **PITTSBURGH CORNING**

KWiK'N EZ<sup>®</sup> Rigid Track Spacer System for Premiere Series Glass Block

# **ASSEMBLY INSTRUCTIONS**





KWiK'N EZ® Rigid Track Spacer System for Premiere Series Glass Block



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KWiK'N EZ® Rigid Track Silicone System U.S. Patent No. 4,986,048

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# Introduction

The KWiK'N EZ<sup>®</sup> Rigid Track Spacer System is the easiest way to install Pittsburgh Corning **Premiere Series Glass Block**. No special skills or tools are required to create the project of your dreams. Now you have two options:

**Option 1** – Silicone joints for an all-glass, crystal-like appearance or;

**Option 2** – Grouted joints for a modular, mortar-like look.

**Premiere Series Rigid Track Horizontal Spacers** are available in 48" or 96" lengths.

**Premiere Series Rigid Track Vertical Spacers** are available in bags of ten (10) pieces of 7<sup>3</sup>/<sub>4</sub>" Rigid Track. Each piece is precut to fit as a vertical spacer between 8" high Premiere Series Glass Blocks.

**Premiere Series Perimeter Channels** are available in 48" or 96" lengths.

# **1. General Information**

- Designed for use with Pittsburgh Corning **Premiere Series** (4" thick) Glass Block only.
- Not for use in constructing curved glass block walls.
- Interior panels no larger than 85 sq. ft. framed on at least three sides with unfinished side no larger than 8 ft. Exterior panels must be no larger than 50 sq. ft. and framed on all four sides. For larger exterior panels, call Pittsburgh Corning Technical Support at 1-800-871-9918.
- All glass block panels are non-load bearing, so adequate provisions must be made for support of construction around the panel.

# **2. Tools Required**

- Screwdriver, electric drill, fine tooth saw, caulking gun, utility knife, rubber mallet, tape measure, razor blade and a two foot level.
- Plus, for grouted joints only, you need a hard rubber float , trowel, soft rag and grout sponge.

# **3. Materials Required**

#### **Option 1** – Typical materials required for Silicone Joints Installation include:

- Pittsburgh Corning Premiere Series Glass Block
- KWiK'N EZ® Premiere Series Rigid Track Horizontal Spacers
- KWiK'N EZ®Premiere Series Rigid Track Vertical Spacers
- Pittsburgh Corning Premiere Series Perimeter Channels
- Pittsburgh Corning Glass Block Sealant
- #6 x 1" flat head galvanized screws (approx. 3 per lineal foot of perimeter channel)

#### **Option 2**-Typical materials required for Grouted Joints Installation include:

- Pittsburgh Corning Premiere Series Glass Block
- KWiK'N EZ® Premiere Series Rigid Track Horizontal Spacers
- KWiK'N EZ®Premiere Series Rigid Track Vertical Spacers
- Pittsburgh Corning Premiere Series Perimeter Channels
- Pittsburgh Corning Glass Block Sealant
- #6 x 1" flat head galvanized screws (approx. 3 per lineal foot of perimeter channel)
- ProVantage<sup>™</sup> Glass Block Grout

#### • Grout Sealer



# 4. Prepare the Opening

• Prepare the rough opening where the panel will be located. Make opening plumb and square to dimensions shown in Table 1.

|  | Rough Opening Size (Inches)       |                                |                                |  |  |
|--|-----------------------------------|--------------------------------|--------------------------------|--|--|
|  | Rough Opening Width and Height    |                                |                                |  |  |
| Number<br>of Blocks  | 4" 6"<br>Wide Wide<br>Block Block |                                | 8"<br>Wide<br>Block            |  |  |
| 1  | 4 <sup>1</sup> / <sub>8</sub>     | 6 <sup>1</sup> / <sub>8</sub>  | 8 <sup>1</sup> / <sub>8</sub>  |  |  |
| 2  | 8                                 | 12                             | 16                             |  |  |
| 3  | 11 <sup>7</sup> / <sub>8</sub>    | 17 <sup>7</sup> /8             | 23 <sup>7</sup> / <sub>8</sub> |  |  |
| 4  | 15 <sup>3</sup> / <sub>4</sub>    | 23 <sup>3</sup> / <sub>4</sub> | 31 <sup>3</sup> / <sub>4</sub> |  |  |
| 5  | 19 <sup>5</sup> / <sub>8</sub>    | 29 <sup>5</sup> / <sub>8</sub> | 39 <sup>5</sup> / <sub>8</sub> |  |  |
| 6  | 23 <sup>1</sup> / <sub>2</sub>    | 35 <sup>1</sup> / <sub>2</sub> | 47 <sup>1</sup> / <sub>2</sub> |  |  |
| 7  | 27 <sup>3</sup> / <sub>8</sub>    | 41 <sup>3</sup> / <sub>8</sub> | 55 <sup>3</sup> / <sub>8</sub> |  |  |
| 8  | 31 <sup>1</sup> / <sub>4</sub>    | 47 <sup>1</sup> / <sub>4</sub> | 63 <sup>1</sup> / <sub>4</sub> |  |  |
| 9  | 35 <sup>1</sup> / <sub>8</sub>    | 53 <sup>1</sup> / <sub>8</sub> | 71 <sup>1</sup> / <sub>8</sub> |  |  |
| 10   | 39                                | 59                             | 79                             |  |  |
| 11   | 42 7/8                            | 64 <sup>7</sup> / <sub>8</sub> | 86 <sup>7</sup> / <sub>8</sub> |  |  |
| 12   | 46 <sup>3</sup> / <sub>4</sub>    | 70 <sup>3</sup> / <sub>4</sub> | 94 <sup>3</sup> / <sub>4</sub> |  |  |
| Note: Blocks are available in 4" x 8", 6" x 6", 6" x 8", and 8" x 8" sizes |                                   |                                |                                |  |  |

square or mitered. Apply two  $^{1}/_{4}$ " beads of sealant on underside of channels horizontally  $^{1}/_{2}$ " from both sides. Screw channels to the bottom and two sides of opening using the holes provided. Use two screws to fasten each end. If you cut off the predrilled holes when trimming the length, simply drill new ones at each end of the cut piece. Paint the screw heads white to reduce visibility.

 So that the last row of Pittsburgh Corning Glass Block units can be installed easily, cut the top perimeter channel in half lengthwise with a utility knife. Apply one bead of sealant. Install that half of the channel at the top of opening (Illus. C). On exterior applications, secure the exterior-side half of the channel with screws. Tha interior half of the channel will be siliconed in place.



# 5. Cut Rigid Track Spacers to Length.

- Cut the horizontal Rigid Track Spacers for each course to fit inside the vertical perimeter channels. Save the short pieces.
- Vertical spacers are supplied precut to length for use with 8" blocks. If the blocks you are using are less than eight inches, cut spacers to size (either straight cut or cope cut as desired).

# 6. Assemble the Panel

- Follow the instructions on the glass block sealant tube to open the tube. Coverage rate is one tube per twenty (20) blocks (adhere horizontal joints only). Cut the tip of the tube on a 45° angle at the <sup>1</sup>/<sub>4</sub>" mark. The sealant skins over in 15-17 minutes. Don't apply sealant to more glass blocks the can be installed in 17 minutes.
- Apply beads of sealant on the interior corners of the sill channel the full length (Illus. D). Slide one block into the right jamb, and one into the left jamb. Install the remaining blocks in this row (Illus. E). As you install multiple rows, make sure to apply beads of sealant on the interior corners of the vertical side channels.





- Install vertical spacers between each of the glass blocks, you may need the rubber mallet to tap the last vertical spacer into position (Illus. F). Inspect each joint for alignment of the spacers. Align this row of blocks between both jambs, you may need to tap a wedge into the right or left jamb to center the row (remove the wedge). See Illus. G.
- Apply a <sup>1</sup>/<sub>4</sub>" bead of sealant on across the row of blocks behind the raised edge of the glass block face on both sides of the blocks (Illus. H).

 Place the horizontal spacer on top of the first row of glass blocks (Illus. I). Remove any excess sealant. Adjust size of beads of sealant to prevent squeeze out (keep joint areas clean). If it's necessary to have a joint in the end of the horizontal spacer to extend it, cut the spacers so that the joint is under a vertical spacer. Stagger these horizontal joints from end to end on each proceeding row of glass blocks.











• Line up enough glass blocks to complete the next row. Apply two beads of sealant (Illus. J) and install these blocks sealant side down on horizontal spacer (Illus. K). Install vertical spacers and align the row with previous row.



- Repeat these same procedures for all rows, except the top row.
- Before installing these blocks apply a <sup>1</sup>/<sub>4</sub>" bead of sealant horizontally along the top inside leg of channel where the glass block face butts.
- Install the glass blocks then slide the vertical spacers in from the front of the glass block joints. The last spacer may need to be tapped in with a rubber mallet (Illus. L).

- Now that last row of blocks have been installed, slide **short** pieces cut from the horizontal spacers into the gap between top of blocks and half-channel previously installed, if space permits.
- Apply a <sup>1</sup>/<sub>4</sub>" bead of sealant horizontally across the top of the rough opening (<sup>1</sup>/<sub>2</sub>" from exposed edge).
- Then apply a <sup>1</sup>/4" bead of sealant horizontally across the top inside edge of the other half of channel and slide it into place wedging it between the spacer and the top of the rough opening (Illus.M) (you may need a piece of tape to hold the channel in place until the sealant sets).





# **7. Seal The Joints Option 1** – Silicone Joints Finish:

 Follow APPLICATION instructions on the glass block sealant tube to open the tube. Coverage rate is one tube per sixteen (16) blocks. The sealant skins over in 15-17 minutes. Don't seal more joints than can be tooled in approximately 17 minutes. Practice the sealing technique before starting.





- Seal the horizontal joints first, pulling the tube through the joint. Slightly over fill the joint. See illustration (Illus. N).
- Use the spoon-shaped finishing tool and push it over the joints at an angle to collect the excess sealant and seal the joint. Periodically wipe the sealant from the joint finishing tool bowl (Illus. O & P).
- Remove any excess sealant from the block faces with the side of your finishing tool.
- Use the same method to fill the vertical joints. Carefully work the joint intersections to create a smooth finish. Repeat this procedure to seal the opposite side of the panel.
- Do not use the back of the finishing tool to smooth joints. This will only smear the silicone.
- Allow the sealant to cure 48 hours before putting any stress on the panel.
- For all exterior panels and panels exposed to water, run a bead of sealant between the perimeter channels and the face of the blocks. Also, between the perimeter channels and the framing. Use the joint finishing tool to seal these joints. Remove excess sealant.
- The piece of perimeter channel along the top (which was wedged in place earlier) must always have a bead of sealant applied between the channel and the frame.

- After 48-hours remove any excess sealant from the glass block faces with a razor blade.
- Clean channel surfaces and glass block faces with glass cleaner or soapy water. Do not use abrasive cleaners or steel wool which may damage the glass surface and silicone.
- Install surrounding wood or other trim, if desired.

#### **Option 2** – Grouted Joint Finish:

#### IMPORTANT: The ProVantage<sup>™</sup> Surface Grout was designed and tested for this application – DO NOT SUBSTITUTE!

- **Caution:** Avoid contact with skin. Safety glasses and impervious gloves are recommended to minimize skin and eye contact.
- This is a fast cure grout and should be applied and completely wiped down within 1 hour. Grout will cure very rapidly after this time period.
- Do <u>not</u> grout the perimeter joints between the blocks and the channels. These joints must be caulked after the grout has dried for a pliable watertight joint.
- Directions must be followed to the exact detail.
- Follow mixing instructions on ProVantage<sup>™</sup> Surface Grout. Grout coverage rate is 80 glass block units per 15 lb. bucket. Approximate ratio is: 3 cups grout to 1 cup water (grout should be mixed to a toothpaste-like consistency).
- Apply grout with a rubber float by pushing grout into all joints. Make sure to push grout in from multiple directions to assure joints are FULLY packed with grout. Be careful not to move the glass blocks while grouting, as the wall will still be a bit flexible prior to the grout curing completely. Movement may cause the grout to separate or squeeze out.
- Wipe down the glass block wall using a tile/grout sponge and a clean bucket of water. Always wipe down in a diagonal direction. This will prevent the grout from being wiped out of the joints. Make sure to rinse the sponge frequently, as it will quickly fill up with excess grout. Fully wring out all the water from the sponge prior to wiping.
- Wipe down should recur in multiple directions until all the grout is removed from the block surface, and joints are smooth.
- Let the glass block wall set for 15 minutes, then wipe it down again using a clean bucket of water.
- The grout will cure within four hours. At this point you can begin polishing glass blocks by wiping down with cheesecloth.

- After the grout is completely dry (approx. 4 hrs.), seal the perimeter joints between the blocks and the channels.
- Use a plastic spoon to take off and smooth out any excess sealant.

#### **Grout Sealer**

 Wait four hours, then apply grout sealer to all grout joints. Immediately wipe off any excess sealer with a clean, dry cloth to prevent it from adhering to the glass block. For maximum protection it is recommended that you apply a second coat of sealer after first coat has dried.

# Maintenance

An important part of the functional beauty of Pittsburgh Corning Glass Block products is that they are virtually maintenance free! There's nothing to rot, rust, peel or paint. All that is needed is an occasional wiping with a damp, soft cloth on interior panels or a hosing on exterior panels. With minimal attention, your Pittsburgh Corning Glass Block panel will remain sparkling and beautiful for years!

**Caution:** Shower applications—avoid cleaning procedures which may damage the joint sealant and cause water leakage through the joint.

# If You Need Assistance

We hope these instructions are clear and answer your questions about the installation of basic, straight Pittsburgh Corning Premiere Series Glass Block panels with the KWiK'N EZ<sup>®</sup> Premiere Series Rigid Track Spacer System. For additional information on Pittsburgh Corning Glass Block visit our website at **www.pittsburghcorning.com** or call **1-800-624-2120**.