

Below Ground Insulation Panel

Are a CS (Calcium Silicate) 3/8" thick pre finished board, factory applied to XPS Extruded Polystyrene Rigid Insulation. This product is a single step process for below grade exterior wall insulation. The product can be installed with through fastened screws or galvanized clips. As a Member of the concrete family, this product can be coated with concrete based coating.

Uses

BGIP™ is a single step below or above grade insulation board in one. This system is intended to work against concrete faced perimeter walls.

BGIP™ is intended for commercial and residential application. The installation can occur in all-weather condition with basic skilled Labour.

Sizes

BGIP™ Panel Size 2'x4'
Foam thick /Panel thick
2" (R10) 2 3/8"butt edge
3" (R15) 3 3/8"butt edge
4" (R20) 4 3/8"butt edge
21lbs., 22lbs., 23lbs.

Wall Design

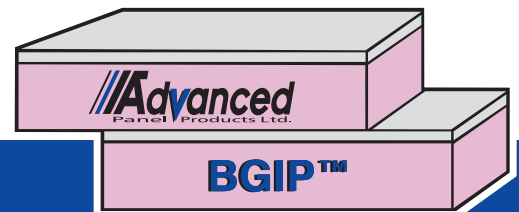
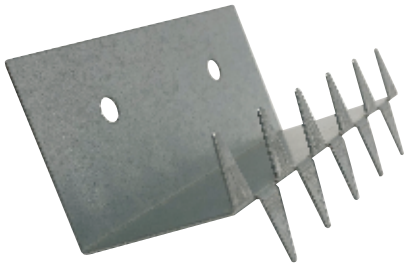
- Please ensure all foundations meet or exceed building code requirements prior to the installation of **BGIP™**.
- **BGIP™** can be installed vertically or horizontally on Flat wall services for best use.
- When installing on irregular shaped walls, installation must be vertical to reduce bridging.
- CS (Calcium Silicate) board as a member of the cementitious family can have colour irregularities and pattern variances. This will not affect the performance of the panel. If a consistent colour is required a high end masonry paint and primer may be applied as the panel has random patterns.

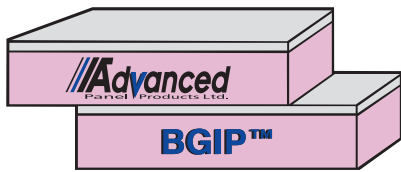
Handling Material

Handling of material must be with appropriate care when transporting, unloading and install. Do not place the panel on a corner to avoid any chance of damage.

Storage

BGIP™ should be remain covered until install. This will help avoid potential UV damages to the xps.foam.





Installation Guidelines for BGIP™

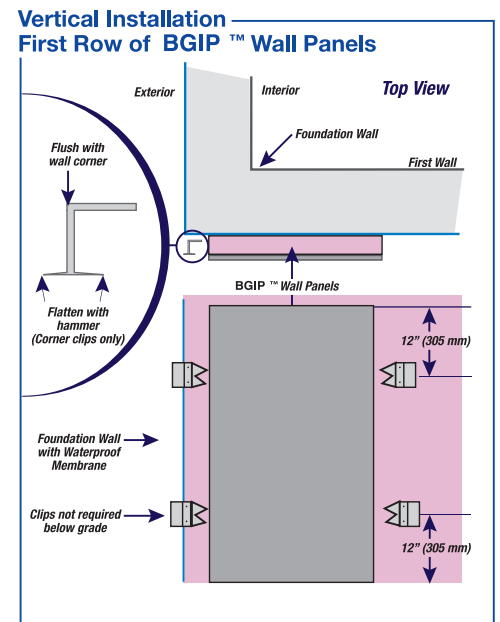
Tools Required

- Chalk line, 4' or 6' level, Scraper, measuring tape, Drill, Hammer drill, 3/16" concrete drill bit (increase bit size if needed), Masonry saw, 3/8" ratchet head socket, job appropriate Flashing, Caulking or sealant that is polystyrene compatible (option only).

Vertical Wall Installation

Step 1.

- Prepare wall surface by removing any protrusions.
- Ensure building codes and damp proofing are met and fully cured.
- Determine the lowest point on the foundation wall for install.
Place a ledger plate at the bottom or make a chalk line where the top of the panel will be placed.
- Begin at corner wall. External Clip spikes can be flattened with a hammer or cut off with a grinder.
- Fasten the 2 outside wall clips flush to begin. Space the clips 12" (305mm) from the end of the panel.
- Fasten the clips using the 1/4" x 1 1/4" concrete provided screws (Do Not over tighten).
- Ensure that the 3/16" concrete drill bit goes a minimum of 25% deeper than the 1 1/4" concrete screw.
- Place the BGIP™ into the clips mounted on the external side. The clips must be fully inserted into the panel foam.

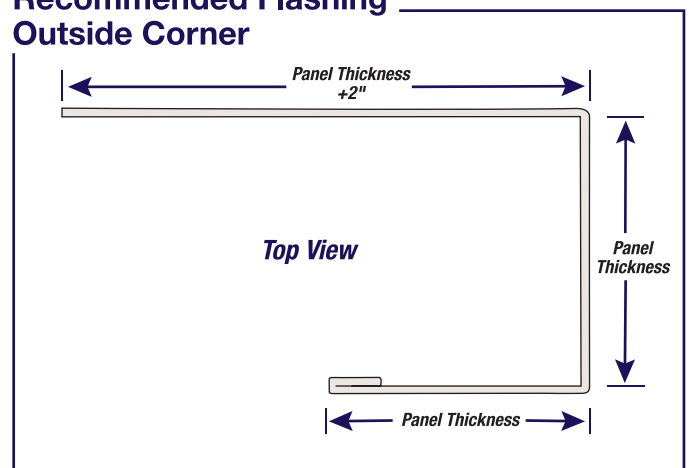


Step 2.

- For the remaining panels, place at the same heights as the previous panel.
- Ensure that the clip is fully secure into the panel at a height of 12" from top and bottom.
- Continue this procedure for the entire wall.
- Final wall piece, must be a minimum of 5" wide if through fastening. Through fasteners must remain a minimum of 2" from all sides and corners.
- Install the appropriate concrete screw into the face of the last panel at 12" from the top and bottom. A minimum of 2" from all sides. Please ensure self-tapping is done correctly as listed above. Do not use explosive or impact actuated fastening systems for surface installation.

***Please refer to outside flashing detail photo.**

Recommended Flashing Outside Corner

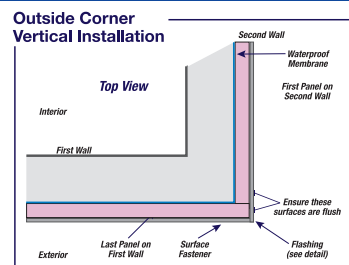




Installation Guidelines for BGIP™

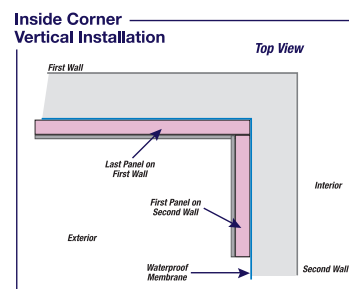
Vertical Installation Outside corner Option

- Please refer to vertical installation step 1 and continue for the entire envelope.



Vertical Installation Inside corner Option

- Cut the last panel to size as required for first wall.
- For wall 2 Place clips 12" from top and bottom. Ensure to cut off the tabs to not interfere with the last panel on wall one. See photo attached.

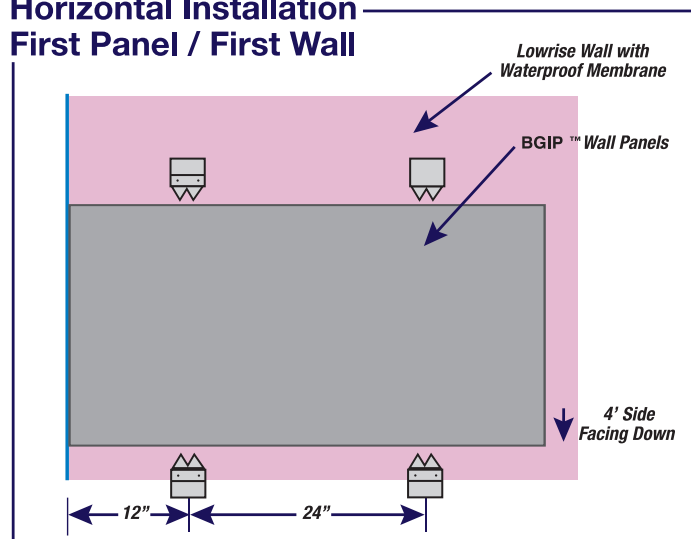


Horizontal Wall Installation low rise wall application less than 36' or less

Step 1.

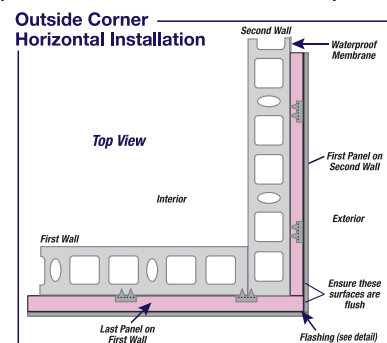
- Prepare wall surface by removing any protrusions.
- Ensure the Bottom of the panel will be placed. Ensure the panel is flush to the side wall.
- Begin at corner wall. The bottom Clip spikes can be flattened with a hammer or cut off with a grinder if placed on a ledger plate.
- Place the first clip 12" (305mm) from both the bottom sides of the panel to begin.
- Fasten the clips using the 1/4" x 1 1/4" concrete provided screws (Do Not over tighten).
- Ensure that the 3/16" concrete drill bit goes a minimum of 25% deeper than the 1 1/4" concrete screw.
- Place 2 clips on the top of the first panel 12" (305mm) from the sides for both clips
- Follow this procedure for the first row until the final panel needs to be placed.
- Final wall piece, must be a minimum of 5" wide if through fastening. Through fasteners must remain a minimum of 2" from all sides and corners.
- Please ensure tapping is done correctly as listed above. Do not use explosive or impact actuated fastening systems for surface installation.
- Clips can be used to install outside pieces.
- Installation of the second row can begin with a half piece to ensure panel ends are staggered. Continue this process for the remaining rows of full pieces and half pieces till the wall is complete.

Horizontal Installation First Panel / First Wall



Horizontal Installation Outside corner Option

- Please refer to Horizontal installation step 1 and continue for the entire envelope.

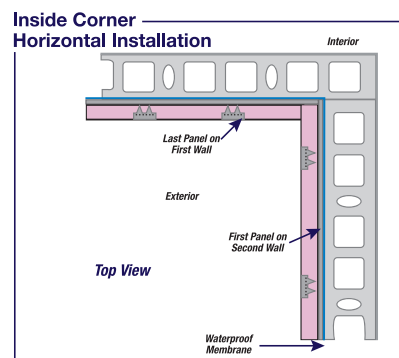




Installation Guidelines for BGIP™

Horizontal Installation Inside corner Option

- Please refer to Horizontal installation step 2 and continue for the entire envelope. Installation of flashing can be pre drilled and mounted to the wall prior to the last panel being placed.

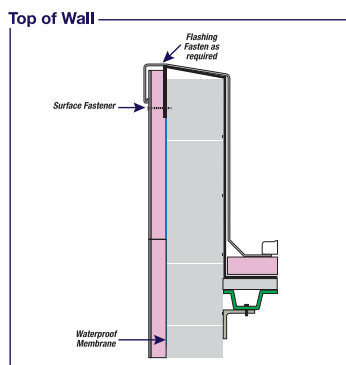


Installation around Windows and Doors

- Cut all **BGIP™** panels to fit around door frames and window opening. Ensure drainage is away from openings.
- Install Flashing around openings will be job specific.
- Install caulking and sealants to ensure a proper seal.

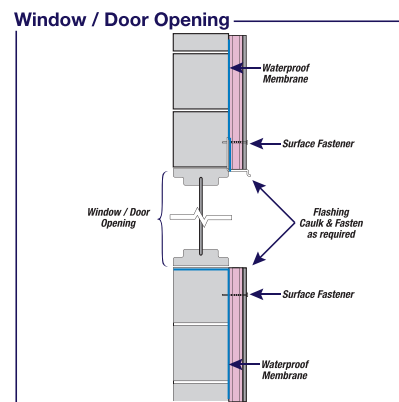
Top of wall

- Install the appropriate concrete screw into the face of the panel at 2" from the top of the last panel. A minimum of 2" from all sides. Please ensure tapping is done correctly as listed above. Do not use explosive or impact actuated fastening systems for surface installation.



Replacing a Damaged Panel

- Damaged panels can be easily removed once installed.
- Using a skill saw, Jig Saw or sharp blade simply cut out the face of the panel where the clips are installed.
- Using a sharp knife or blade cut the remaining foam out of place and remove the panel.
- Install the replacement panel with a through surface fastener.
- If any panels have been damaged set them aside and try to use them for final cuts and smaller fills.



Repairs and Bridging

- Please ensure all wall surfaces are flat and clear of imperfections.
- Imperfections larger than with 1/8" x 1" larger can cause issue with the panel's performance.
- In a case of large imperfections Styrofoam can be cut out and removed to avoid this issue.
- In the case of a repair use a Moisture Resistant Ready-Mixed Joint filler or any Cementitious adherent/filler/parging. The product can be primed and painted after repair if needed.

Notice:

Information contained in this Installation Guidelines for **BGIP™** manufactured by Advanced Panel Products Ltd. is up-to-date and correct as at the date of issue. As Advanced Panel Products Ltd. cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use. It is solely the responsibility of the end user to ensure this product meets local building codes. To the maximum extent permitted by law, Advanced Panel Products Ltd. will not be responsible for damages of any nature resulting from the use or reliance upon the information contained in this Installation Guidelines. No express or implied warranties are given other than those implies mandatory by law.