

Amgard Installation Manual

PROTECTIVE FOAM SOLUTIONS

INNOVATIVE INSULATION CONSTRUCTION
SOLUTIONS FOR ENERGY EFFICIENT AND
COMFORTABLE BUILDINGS

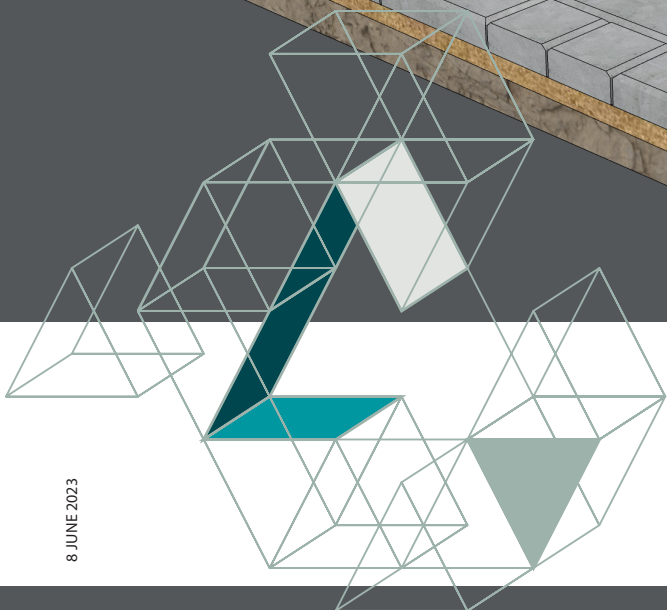
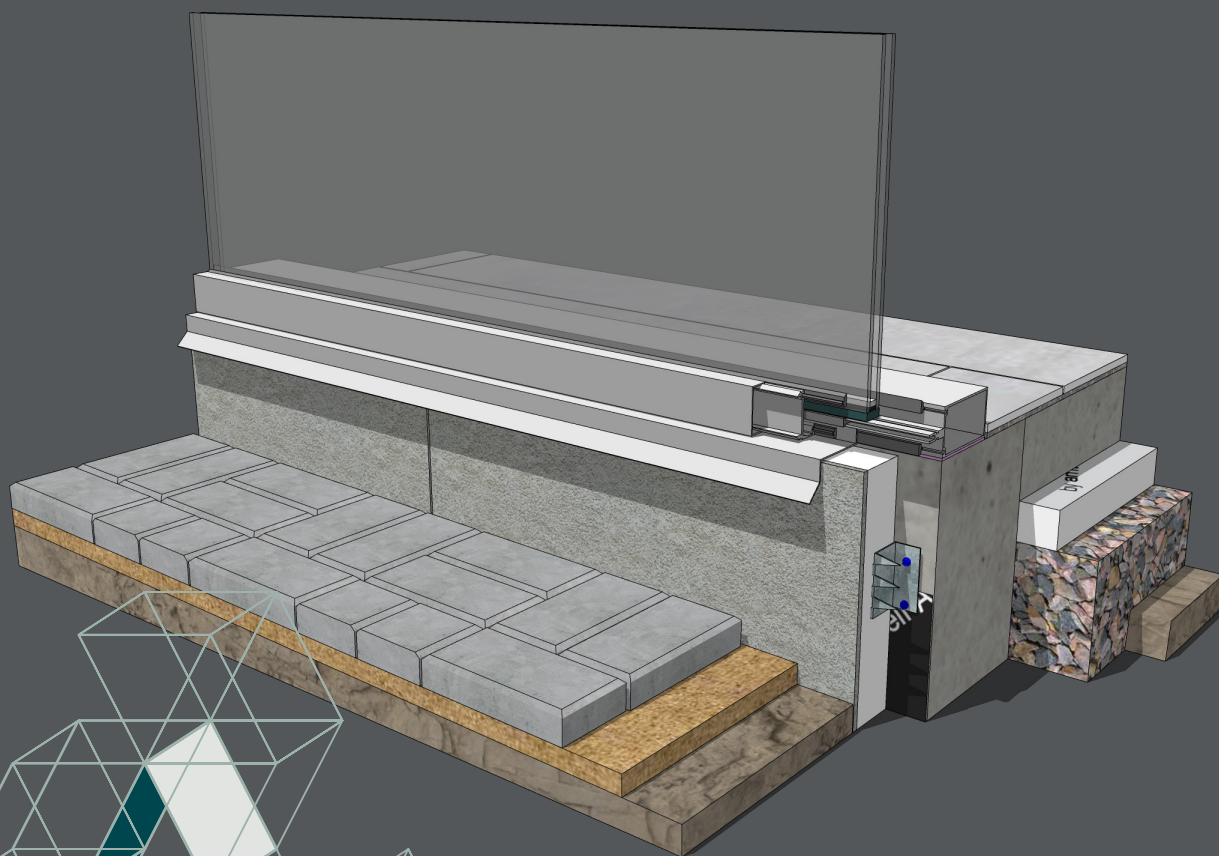


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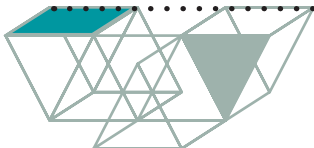
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PREFACE

The continuity of the thermal envelope is extremely crucial for the overall energy performance of any building. It is common for the foundation to be exposed and unprotected at grade as this was the easiest, cheapest and the way construction was done for decades. As the energy standards become more stringent and energy efficiency becomes much more important, the need for thermal envelope continuity increases as well. Alleguard's Amgard panels offer a highly versatile solution that aims to provide a cost effective product, with great thermal characteristics, superior durability and appearance. The combination of the high density foam and fiber reinforced cement coating allows the panels to be installed in virtually any transition area regardless shapes, size and foundation type. Amgard is backed-up by Alleguard's renowned customer service and technical support and is available through Alleguard's extensive distributor network across North America.

If any of your questions or concerns are not completely addressed in this manual, feel free to contact us and our staff will be happy to answer your questions. At Alleguard, we pride ourselves in offering our customers an exceptional level of customer service.

Technical Support

Please contact us for any inquiries pertaining to information included in this manual or if you require other technical assistance.

Phone: 1 (877) 470-9991 (toll free)

Email: amvic.technical@alleguard.com

Alleguard Website

The Alleguard website is updated regularly with the most updated information including, product data sheets, construction details and installation manuals. This technical and installation manual is posted on the website, see www.alleguard.com



PREFACE

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This document is provided for informational purposes only. The information contained in this document represents the current views of Alleguard on the issues discussed as of the date of publication. These opinions, as expressed, should not be interpreted to be a commitment on the part of Alleguard and cannot guarantee the accuracy of any information presented after the date of publication. The user assumes the entire risk as to the accuracy and the use of this document.

This manual provides a basic guide for the installation of the Amgard and is intended to supplement, rather than replace, the basic construction knowledge of the construction professional. All installations of Amgard must be in accordance with all applicable building codes and/or under the guidance of a licensed professional engineer. In all cases, applicable building code regulations take precedence over this manual.

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Amgard is an insulated, non-structural, prefinished panel designed to be installed on the exterior perimeter of a building at or near grade. The combination of closed cell, high density (Type 2/Type II) Expanded Polystyrene (EPS) foam with high strength fiber reinforced cement makes for a high quality and durable panel. The 5/16" (8mm) thick facing provides the panels with superb impact resistance while keeping the panels lightweight (22lb (10kg)). The wall panels are installed using specially designed galvanized steel clips. Amgard panels can be used in both new and retrofit applications for commercial, residential, industrial and institutional applications.

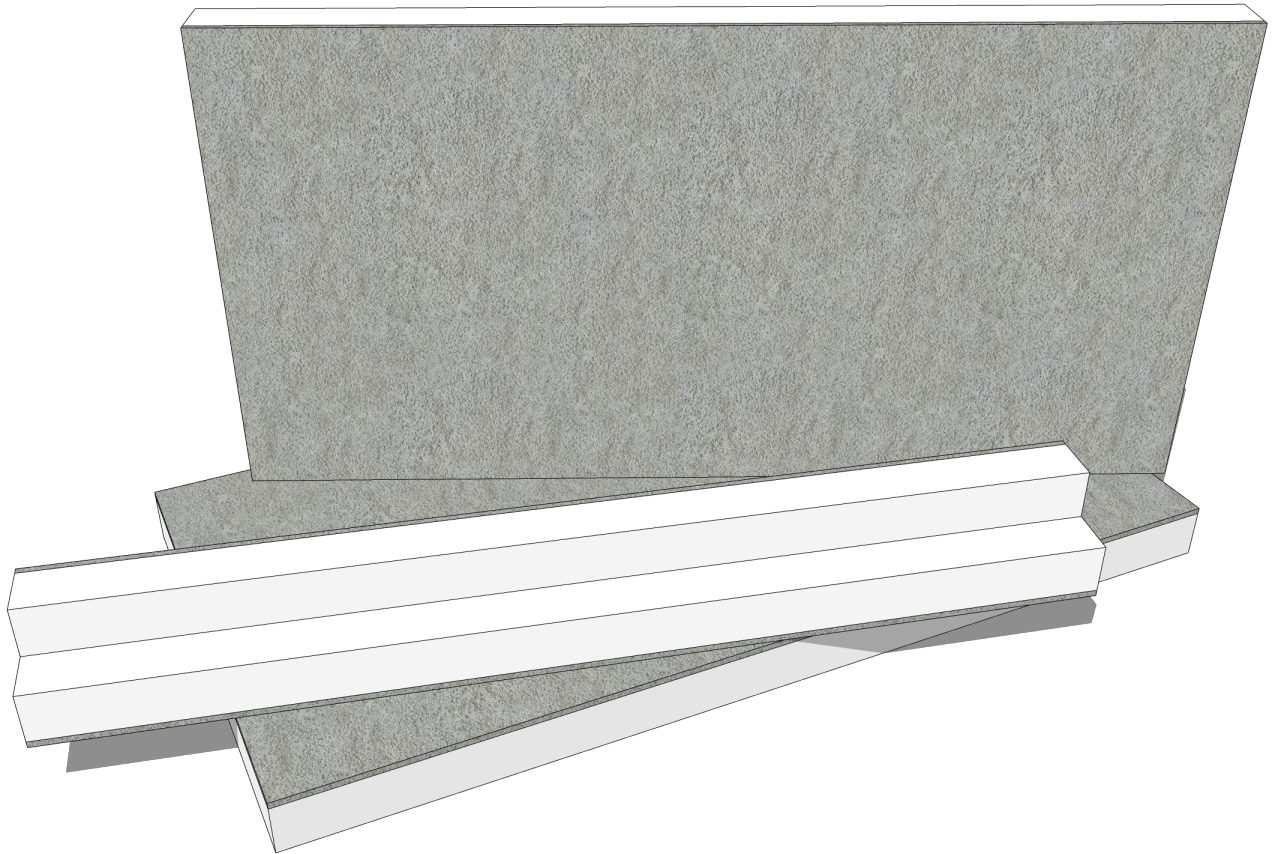


Figure 1 – Amgard straight and corner panels

Amgard's hidden clip system is designed to provide easy and simple mounting for the panels. Each clip is made from hot-dip galvanized steel for superior protection and longevity. The clips are designed to provide both shear and pull out resistance for the panels.

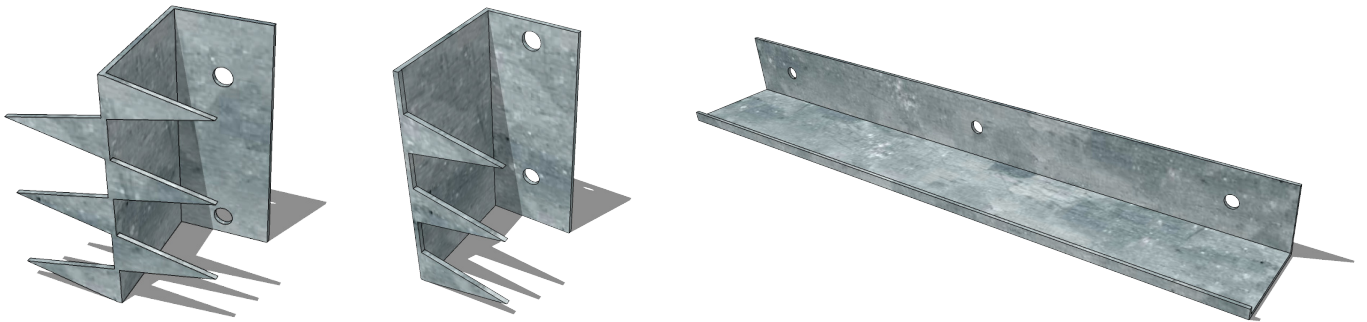


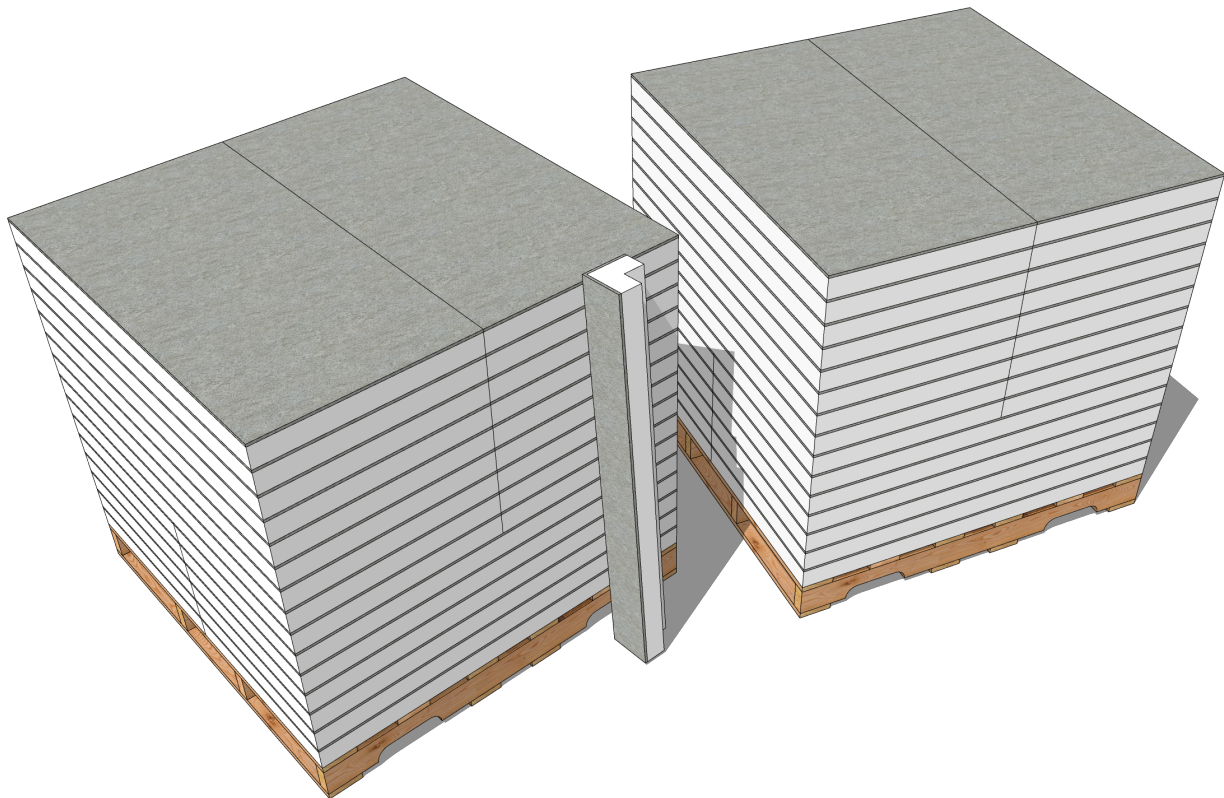
Figure 2 – Amgard clips (left to right: double sided, single sided and base clip)



Handling and Storage

Amgard panels are shipped in shrink-wrapped pallets of 30 panels (for R10 (RSI 1.76)) or 20 panels (for R15 (RSI 2.64)). Due to pallet weight, a forklift is recommended to unload pallets and move them around the job site. The shrink-wrapped pallet should NOT be considered a long-term weather protection and should be covered or stored in a dry area for any extended periods before installation. Storage temperature should not exceed 158°F (70°C). Pallets should be stored on flat ground. The Inner corrugated cartons providing ease of transport, damage and handling protection and easy identification of product on the job site when pallets are opened.

Panels can be cut using a masonry saw or circular saw with a standard carbide or diamond blade. Whether panels are wet cut or dry cut, panels should be brushed off to remove any cutting dust or debris before installation. Cut panels should be individually handled until dry or installed. Amgard panels are very tough and durable, however, the finished cement surface may be damaged if handled roughly or dropped on their corners. Following these handling directions, during both delivery and installation is essential to achieve quality results and minimize on site or transportation damage when using Amgard panels.



Material and Tool Checklist

- ☐ Heavy duty wall scraper or concrete chisel to remove wall irregularities
- ☐ Measuring tape
- ☐ 48" (1219mm) level
- ☐ Chalk line
- ☐ Rotary hammer drill
- ☐ 5/32" (4mm) concrete drill bit(s)
- ☐ Metal/vinyl flashing
- ☐ Masonry saw or circular saw with carbide or diamond blade
- ☐ Hand ratchet or impact drill with 1/4" (6mm) hex head nut driver (for hex head concrete screws)
- ☐ Polystyrene compatible sealant or adhesive foam

Applications

Commercial/Industrial

- ☐ Below curtain walls
- ☐ Below precast concrete panels
- ☐ As insulated wall panels

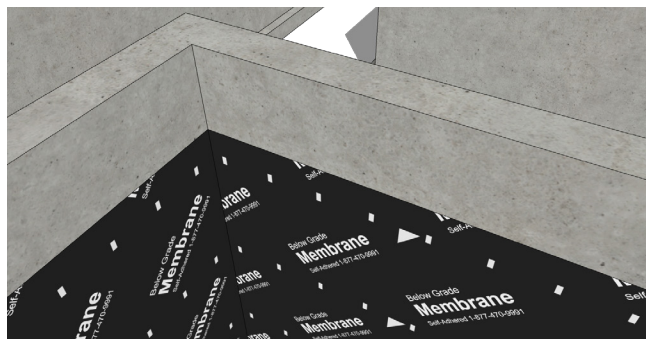
Residential

- ☐ Below masonry veneer
- ☐ Below siding



1. Prepare Foundation Wall Surface

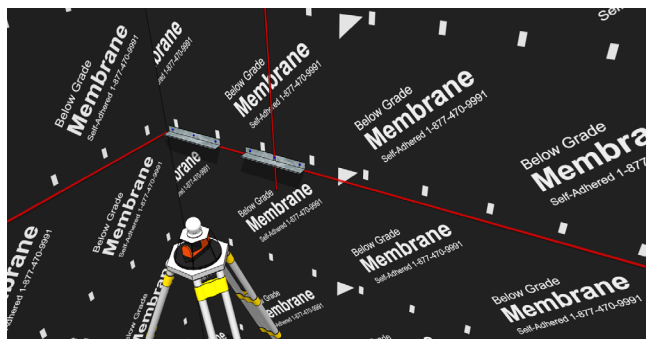
Remove any surface irregularities (any protrusion more than 1/2" (13mm) high, or jagged surfaces on the foundation. It is important to have flat and clean attachment surface before installation. Ensure that waterproofing (or damp proofing where appropriate) is allowed to fully cure before installing the panels.



2. Installation of first Panel

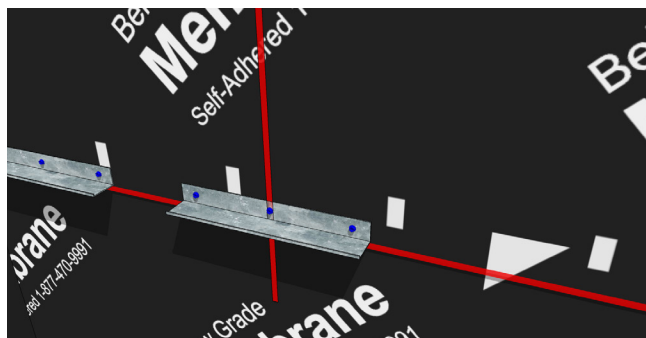
The first panel should start from an inside corner. This method will minimize panel cutting and improve ease of installation. Mark the bottom of the panels on the foundation wall using a laser level or chalk line and a hand level.

Note: Base clip is not needed if there a ledge in the foundation.

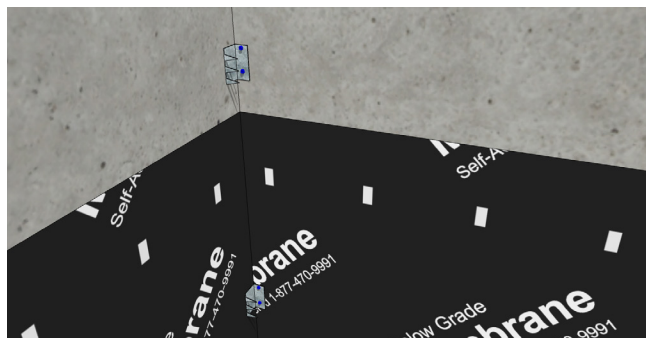


3. Once the correct elevation has been established, mark the edge of the first panel on the foundation wall. The 12" (305mm) base clip should be installed centered with the joint between the two panels and at the correct elevation level. The base clip will provide 6" (152mm) of bearing for each panel.

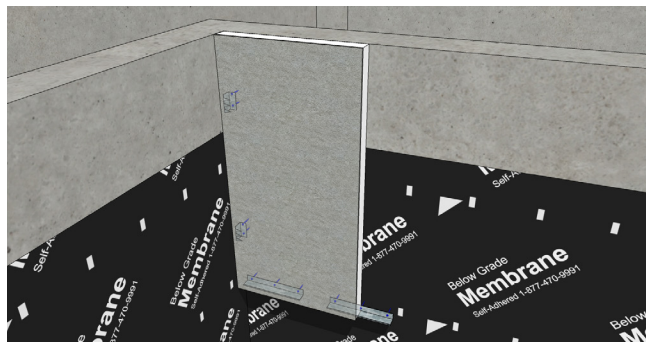
Note: Clips are secured with 2-3 1.25" (32mm) concrete screws.



4. Install two single sided clips inside the corner. For vertical panels installation, the clips should be installed 10" (254mm) from the top and bottom of the panel. For horizontal installation, the clips should be installed 4" (102mm) from the top and bottom of the panel.



5. Once all three clips are in place, take the first panel and slide it along the base clip, firmly pressing until the single sided clip teeth are not visible.



6. Installation of Second and Subsequent Panels

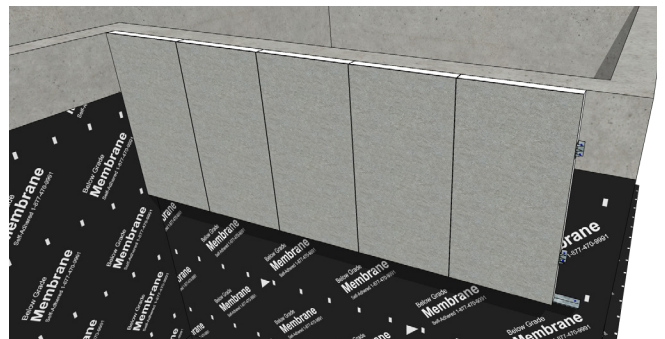
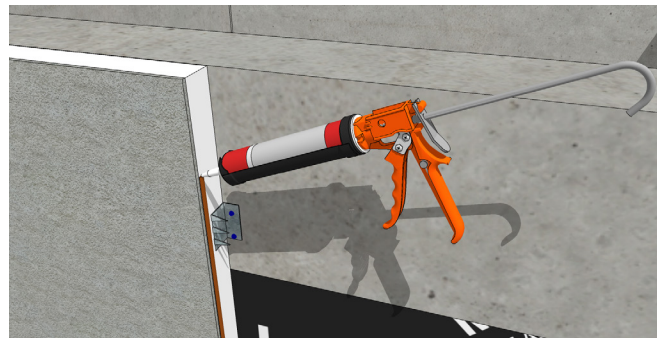
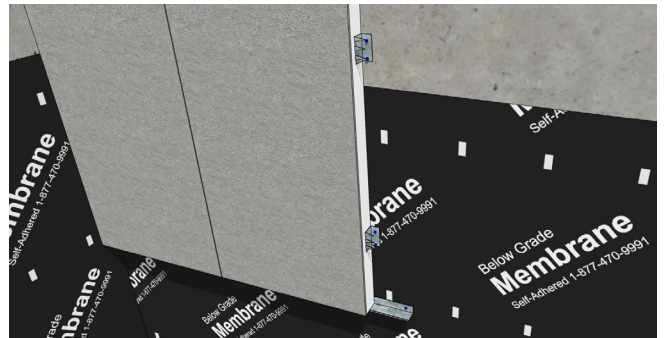
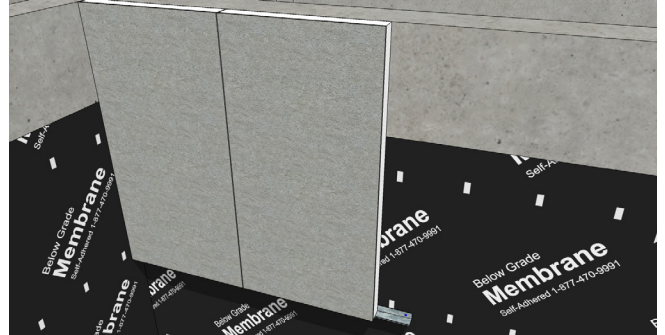
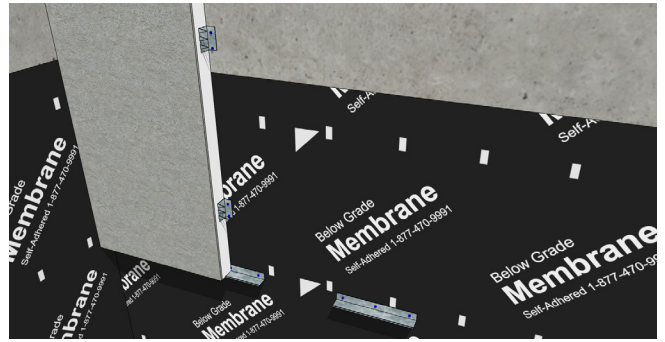
Install two double sided clips by sliding the teeth into the foam and screwing them in place. For vertical panels installation, the clips should be installed 10" (254mm) from the top and bottom of the panel. For horizontal installation, the clips should be installed 4" (102mm) from the top and bottom of the panel. Install the second base clip at the center of the second and third panels at the correct elevation.

7. Slide the second panel along the base clips into the teeth of the double sided clips.

8. Install the next set of two double sided clips by sliding the teeth into the foam and screwing them in place. Ensure that the panels and clips are all tightly abutting each other to minimize the gap between panels. Also install the next base clip.

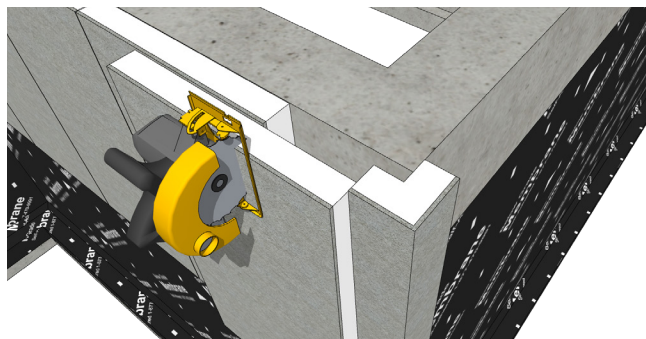
9. Sealant can be applied between panels to achieve better weather resistance. Use polystyrene compatible sealant. Apply a 1/4-3/8" (6.3-13mm) bead of sealant on the side of a panel, along the interface of coating and foam. Once the sealant bead is in place, slide the next panel, abutting it tightly and securing it in place with the next set of clips. Once the panels are firmly attached, wipe off any excess sealant at the joint for a clean and finished appearance.

10. Continue with installation of full width panels until nearing a corner.



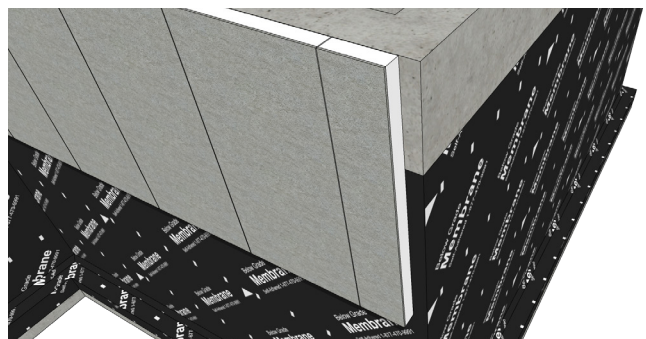
11. Cut Panel

Most wall sections will require some panel cutting. It is recommended to cut only one panel per wall section which should be located near a corner. This will eliminate the need for multiple cut panels. The size of the cut panel can be measured, or the corner piece can be dry fit and gap measurements taken for the cut panel.



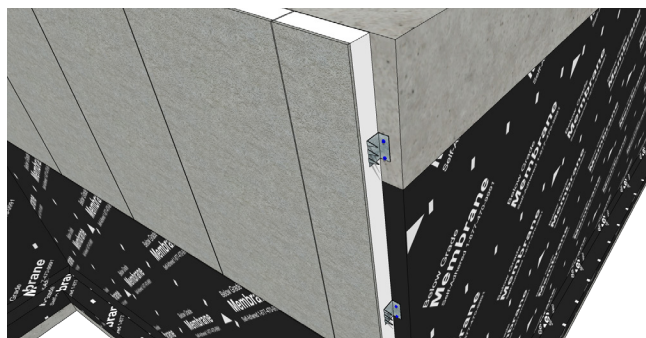
12. Once the panel has been cut to size, it can be installed as any normal panel would be, by sliding it along the base clip into the teeth of the double sided clips.

Note: Minimum cut panel width should not be less than 6" (152mm).



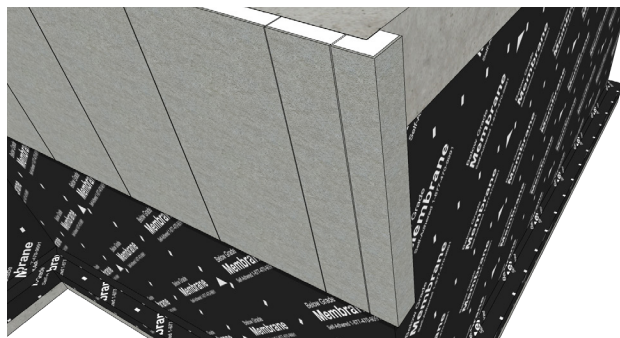
13. Install the next set of two double sided clips by sliding the teeth into the foam and screwing them in place. Ensure that the panels and clips are all tightly abutting each other to minimize the gap between panels.

Note: Provide a base clip at each vertical joint.

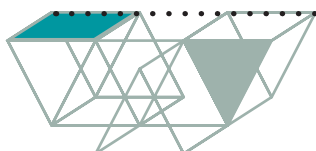
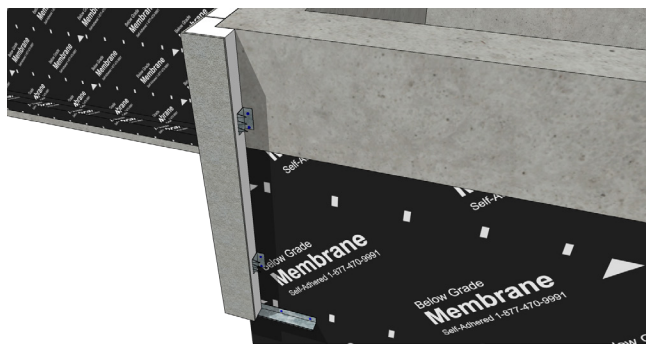


14. Outside Corner Panel Installation

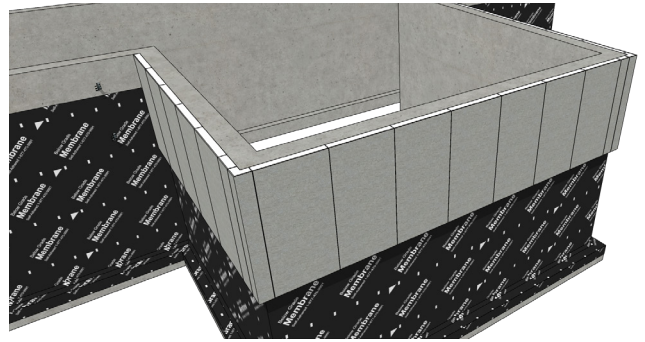
Install the corner panel by sliding it into the first set of double sided clips.



15. Once the corner panel is in place, install the next set of two double sided clips by sliding the teeth into the foam and screwing them in place. Ensure that the panels and clips are all tightly abutting each other to minimize the gap between panels.



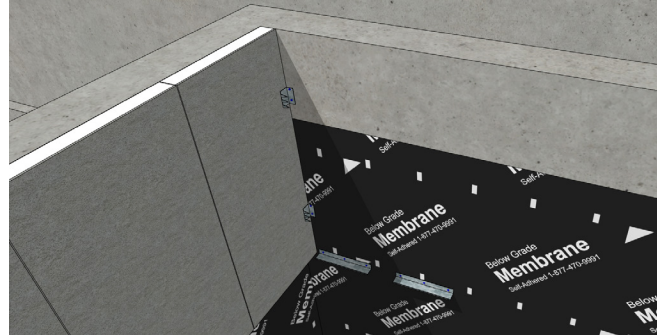
16. Continue with installation of full width panels until nearing the next corner and repeat the process outlined in the previous steps.



17. Inside Corner

When reaching an inside corner, install two single sided clips abutting the last panel. The clips are mounted to the foundation with concrete screws and NOT to the panel.

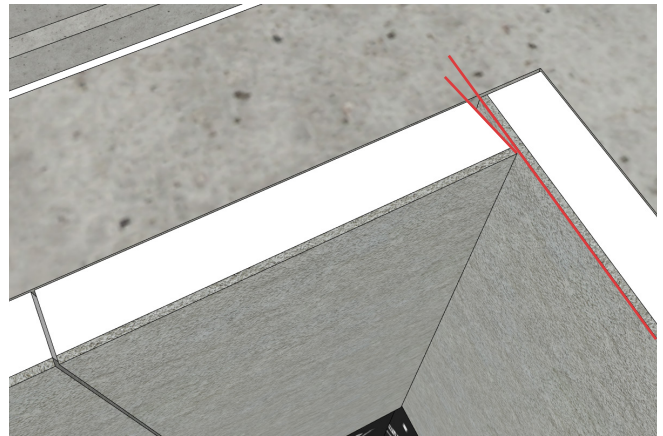
Note: For horizontal installation, provide additional base clip on the side that is abutting the foundation to prevent sagging.



18. Last Panel

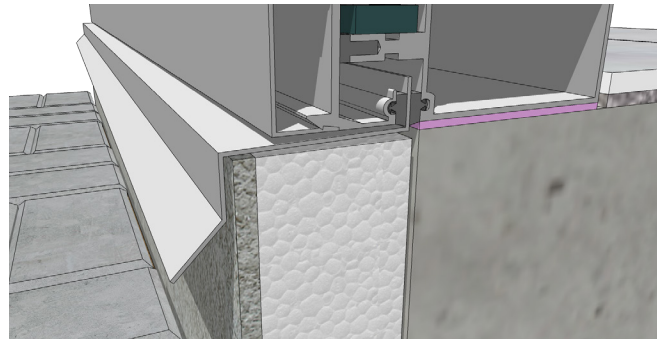
In order to install the last panel, measure and cut the panel to the correct size. The cut side should be miter cut at an angle (5-10°) to facilitate installation. Place the factory edge against the panel which is already in place and swing the cut edge into place. Apply vertical adhesive on back of cut panel to secure to the foundation wall.

Note: For horizontal installation, provide additional base clip on the cut side to prevent sagging.



19. Flashing

Install metal flashing with a proper drip edge at any location where exposed panel edges can be seen. Make sure flashing is installed with minimum slope to allow water drainage. Drip edge reduces the amount of water that will run down the surface of the panel, reducing the chance of staining and efflorescence.





Amgard is a high quality, durable, prefinished insulated panel designed to protect foundations and waterproofing systems at grade and other transition areas in most types of buildings. Competitive pricing, extensive product distribution and excellent technical support are combined to provide our clients with a simplified approach to a superior finished product. If any questions or concerns are not completely addressed in this guide, please contact us and our staff will be happy to answer any question. At Alleguard, we pride ourselves in offering our customers an exceptional level of customer service.

Disclaimer

Information contained in this document is provided as a guideline only, without any warranty of any kind, either expressed or implied, including, but not limited to, the implied warranties of merchantability, fitness for a particular purpose, and freedom of infringement.

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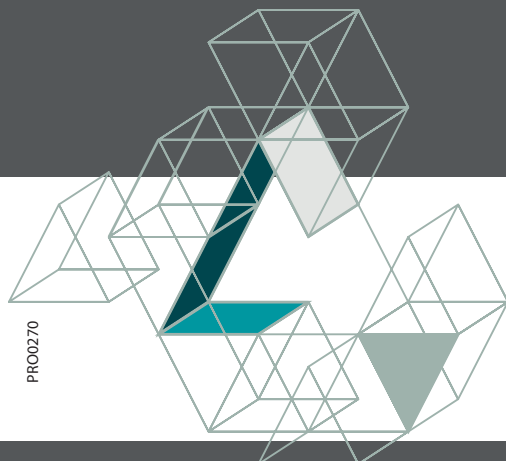
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