# WALLcontrol™ Polyiso Insulation

## Installer's Guide

09-2023 Version

## Table of Contents




siplast®
With you every step of the way

Siplast Headquarters
14911 Quorum Dr.Suite 600
Dallas, Texas 75254
469-995-2200

In Canada:
201 Bewicke Ave., Suite 208
Vancouver, BC, V7M 3M7
604-929-7687

Customer Service in North America:
Toll Free 1-800-922-8800
www.siplast.com

# I. Siplast WALLcontrol Adhered Products System Overview

### Siplast WALLcontrol System

Siplast WALLcontrol products provide high-performance solutions for vertical walls, helping to create continuous air, water, and thermal protection for commercial buildings and enabling transitions from roofing and waterproofing systems.

# II. Products

### Insulation Board

- Siplast WALLcontrol Polyiso Foil Faced Insulation Board
- Siplast WALLcontrol Polyiso Glass Faced Insulation Board

### Accessories (as needed)

- Plasti-Grip® CBW fastener by TRUFAST or equivalent
- Siplast WALLcontrol Modified Silicone (STPE) VP Liquid Flashing
- Siplast PS-715 NS Elastomeric Sealant or a compatible approved sealant

# III. Personal Protection

For professional use only. Refer to the applicable WALLcontrol Polyiso Insulation Board Commercial Product Data Sheets (CPDS), Safety Data Sheets (SDS), project specifications, and application instructions. Use personal protective equipment as required. Always read the full label and product safety data sheet for precautionary instructions before use. Use appropriate safety equipment and job-site controls during application and handling.

# IV. Storage and Handling

WALLcontrol Polyiso Insulation Boards should be stored indoors on risers elevated at least 4 inches above floor/grade. When the boards must be stored outdoors, completely protect them from moisture (Manufacturer's packaging is not sufficient protection from moisture). If the building interior is not protected from exterior moisture, protect insulation boards as if stored outdoors. Do not allow standing water to collect on top of protection or below the boards. Material damaged by moisture is not fit for intended use and must be discarded. Segregate and discard any material that is damaged beyond repair and not fit for intended use. Take appropriate measures to secure insulation boards from wind events. Do not exceed weight of 25 lbs. per square foot. Use appropriate safety equipment and job-site controls during application and handling. Dispose of unused WALLcontrol Polyiso Insulation Boards in accordance with local, state and federal regulations. Consult local, provincial, territory or state authorities to know disposal methods.

## V. Building and Energy Codes

References are made to the 2012/2015/2018/2021 International Building Code (IBC), the 2012/2015/2018/2021 International Energy Conservation Code (IECC), the ASHRAE 90.1 2010/2013/2016/2019 Standard. This information is provided for educational purposes only, and is not a substitute for independent review of applicable building and energy code requirements. Siplast makes no representation or warranty (express or implied) as to the accuracy of the information contained herein. WALLcontrol Polyiso Insulation Boards comply with, or is a suitable alternative to, the applicable sections of the IBC and the IECC and is subject to the following conditions:

- The applicable building code sections, which always supersede this instruction
- Structural requirements
- Fire requirements
- Wind pressure requirements
- Exterior wall covering requirements
- Flashing requirements
- Moisture barrier requirements
- Air barrier requirements
- Vapor barrier requirements
- TER 2304-113 - Fire Performance of WALLcontrol Products in Buildings of Type I-V DrJ, July 2023
- ANSI/ABTG FS200.1 Standard for Use of Foam Plastic Insulating Sheathing (FPIS) in Building Envelopes: Above-grade Walls. Refer to Chapter 4 for the installation of cladding and other connections through FPIS.

## VI. Installation Tools

For the installation of WALLcontrol Polyiso Insulation Boards, the following tools are recommended:

- Tape measure, utility or insulation knife, circular or table saw.

## VII. Substrate Preparation

Prior to the installation of WALLcontrol Polyiso Insulation Board the following are required:

- Air and water-resistive barrier shall be installed to eliminate the ability of water to saturate the wall or interior space. Coordinate installation of WALLcontrol products with the roofing trade to ensure compatibility and continuity with the roofing system.
- Surface must be clean, dry, and free from gross irregularities, loose material, unsound material, sharp protrusions, any foreign material (such as dirt, ice, snow, water, grease, bitumen/coal tar, oil, release agents, lacquers, paints), or any other condition that would be detrimental to the installation of the foam board
- Clean loose dust or dirt from the surface to which the WALLcontrol Polyiso Insulation Board is to be installed by wiping with a clean, dry cloth or brush.
- WALLcontrol Polyiso Insulation Board may be installed to most typical building materials such as exterior sheathing boards, CMU, concrete, exterior grade plywood, OSB, and metal surfaces.

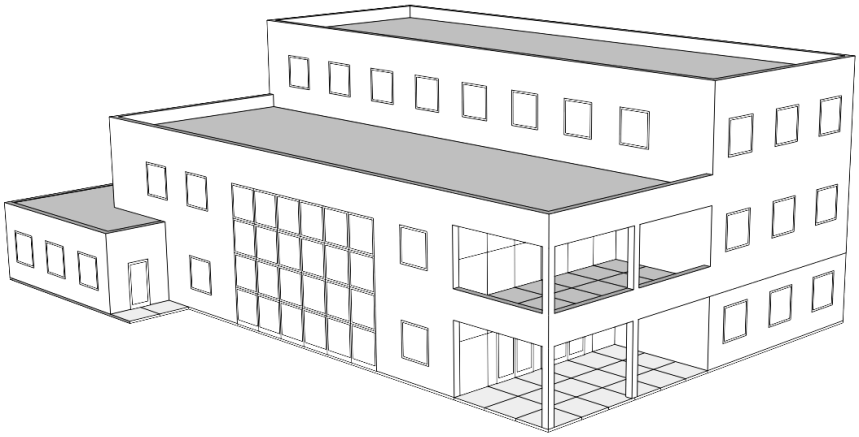
## VIII. General Applications

The following requirements apply to all WALLcontrol Polyiso Insulation Board installations:

- All wall applications are for above-grade installations only.
- WALLcontrol Polyiso Insulation Boards are not a nailing base for attachment of any kind.
- WALLcontrol Polyiso Insulation Boards are not structural. Install WALLcontrol Polyiso Insulation Board over clean, dry, suitable framing spaced no more than 24 inches on center.
- Keep open flame away from the insulation board at all times.
- Install WALLcontrol Polyiso Insulation Board with printed side facing exterior.
- Use maximum length WALLcontrol Polyiso Insulation Board to minimize joints. Stagger WALLcontrol Polyiso Insulation Board joints from those of underlying exterior gypsum sheathing. Stagger insulation board vertical joints 48 inches apart from previous course. Overlap subsequent courses of insulation board at corners.
- Cut or split WALLcontrol Polyiso Insulation Board to fit between masonry ties if applicable.
- Locate WALLcontrol Polyiso Insulation Board so that starting and ending edges center on framing members.
- Cut WALLcontrol Polyiso Insulation Board to fit tight at joints, penetrations and features.
- Install exterior claddings per cladding manufacturer's instructions and design professional's specification.
- For footings with a masonry veneer brick ledge, place bottom edge of first course of Product ¼ inch–½ inch above footing to allow clearance for drainage. If metal framing is installed flush with footing, place bottom edge of first course of WALLcontrol Polyiso Insulation Board even with bottom of edge of gypsum sheathing board.
- Install WALLcontrol Polyiso Insulation Board with long edges perpendicular to framing. Accessories such as masonry ties or other cladding attachments may dictate suitable orientation.
- For metal framing, use self-drilling screws with minimum a 1¾ inch diameter washer and ¾ inch minimum metal framing penetration to fasten WALLcontrol Polyiso Insulation Board. Plasti-Grip® CBW by TRUFAST or equivalent is an acceptable fastener.
- For masonry wall use a fastener with minimum 2 ⅜ inch diameter washer, 1½ inch minimum masonry penetration. Plasti-Grip® PMF Fastener by TRUFAST or equivalent is an acceptable fastener.
- Fasten WALLcontrol Polyiso Insulation Board every 12" on center around the perimeter and every 16" on center in the field. Drive the correct length fastener flush to the insulation board surface. Do not countersink fasteners or washers. One 1¾ inch or greater washer style fastener at joint can bridge two adjacent boards.
- The exterior cladding fastening systems which fasten through the WALLcontrol Polyiso Insulation Board to the structure are often sufficient for a complete installation. In these cases, the installer can determine sufficient fasteners, adhesives or friction fitting between masonry ties to secure the insulation board in-place temporarily to meet project environmental conditions until the cladding system fasteners can anchor the foam board to structure. Any WALLcontrol Polyiso Insulation Board left exposed and not secured to the structure by the cladding attachment system must be secured appropriately before leaving the installation unattended.
- When using adhesive as an alternate fastening method, apply adhesive ⅜ inch thick by 3 inch diameter pads to the back of the WALLcontrol Polyiso Insulation Board in four rows with a minimum of seven pads per row. Space adhesive pads evenly across the length of the Product at no more than 16 inches on center. Space pads in rows no more than 16 inches on center and no more than 3 inches from Product ends and edges. Immediately place insulation against the wall surface before adhesive "skins". If adhesive "skins," remove and apply fresh material.
- For installations of multiple layers of WALLcontrol Polyiso Insulation Board, offset vertical joints between first and second layers of the insulation board by at least one stud cavity and horizontal joints by at least 6 inches.

# IX. Specific Applications

For specific application information refer to the WALLcontrol detail and sequence sheets. Product and installation requirements may vary by application and project conditions.



## Detail Sequences Drawing List

Below is a list of detail sequence sheets relevant to the WALLcontrol adhered product installations:

*General Details*

00 Detail Legend & Drawing List
01.S Adhered Membrane Wall Application
01.L Liquid Applied Wall Application
01.P Polyiso Board Wall Application
01.R AWB Repairs

*Wall Condition Details*

02.1 Substrate Joints
02.2 Outside Corners
02.3 Inside Corners
02.4 Cladding Attachments
02.5 Beam and Knifeplates
02.6 Pipe Penetrations
02.7 Electrical Penetrations
02.8 Relief Angle at Wall

*Opening Details*

03.1 Fenestration Flashing Overview
03.2 Fenestration Rough Opening with Adhered Flashing
03.3 Fenestration Rough Opening with Liquid Flashing
03.4 Fenestration Head Options
03.5 Fenestration Integral Flanged
03.8 Door Frame Flashing

*Transition Details*

04.1 Parapet Transition Flashing
04.2 Flush Edge Roof Transition Flashing
04.3 Parapet at Rising Wall Flashing
04.4 Wall to Waterproofing Transition
04.5 Soffits and Overhangs
05.1 Ledge Foundation Transition Flashing
05.2 Flush Foundation Transition Flashing

# X. Bundle and Truckload Data

WALLcontrol Polyiso Insulation Products are shipped in 48” high packages and are loaded 24 packages per truckload (based on a standard 48’ truck). Truckload quantities can vary when lengths and thicknesses are mixed. Minimum order quantities and extended lead times may apply.

## WALLcontrol Polyiso Foil Faced Insulation

| Nominal Thickness | R-Value[1] | RSI | Pieces Per Bundle | Pieces Per Truckload 4' x 8' | Square Ft. Per Bundle 4' x 8' | Square Ft. Per Truckload 4' x 8' | Pieces Per Truckload 4' x 9' | Square Ft. Per Bundle 4' x 9' | Square Ft. Per Truckload 4' x 9' | Weight (lb/sf) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1" | 6.5 | 1.14 | 45 | 1,080 | 1,440 | 34,560 | 900 | 1,620 | 32,400 | 0.2802 |
| 1.2" | 7.5 | 1.32 | 39 | 936 | 1,248 | 29,952 | 780 | 1,404 | 28,080 | 0.3298 |
| 1.5" | 9.8 | 1.73 | 30 | 720 | 960 | 23,040 | 600 | 1,080 | 21,600 | 0.4042 |
| 1.6" | 10.5 | 1.85 | 27 | 648 | 864 | 20,736 | 540 | 972 | 19,440 | 0.429 |
| 2" | 13.1 | 2.31 | 22 | 528 | 704 | 16,896 | 440 | 792 | 15,840 | 0.5282 |
| 2.5" | 16.0 | 2.82 | 18 | 432 | 576 | 13,824 | 360 | 648 | 12,960 | 0.6522 |
| 3" | 19.7 | 3.47 | 15 | 360 | 480 | 11,520 | 300 | 540 | 10,800 | 0.7762 |
| 3.1" | 20.4 | 3.59 | 15 | 360 | 480 | 11,520 | 300 | 540 | 10,800 | 0.8021 |
| 3.5" | 22.2 | 3.91 | 13 | 312 | 416 | 9,984 | 260 | 468 | 9,360 | 0.9002 |
| 4" | 26.0 | 4.58 | 11 | 264 | 352 | 8,448 | 220 | 396 | 7,920 | 1.0242 |

## WALLcontrol Polyiso Glass Faced Insulation

| Nominal Thickness | R-Value[1] | RSI | Pieces Per Bundle | Pieces Per Truckload 4' x 8' | Square Ft. Per Bundle 4' x 8' | Square Ft. Per Truckload 4' x 8' | Pieces Per Truckload 4' x 9' | Square Ft. Per Bundle 4' x 9' | Square Ft. Per Truckload 4' x 9' | Weight (lb/sf) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1" | 6.0 | 1.06 | 45 | 1,080 | 1,440 | 34,560 | 900 | 1,620 | 32,400 | 0.3624 |
| 1.5" | 9.0 | 1.59 | 30 | 720 | 960 | 23,040 | 600 | 1,080 | 21,600 | 0.4554 |
| 2" | 12.1 | 2.13 | 22 | 528 | 704 | 16,896 | 440 | 792 | 15,840 | 0.5484 |
| 2.5" | 15.3 | 2.69 | 18 | 432 | 576 | 13,824 | 360 | 648 | 12,960 | 0.6414 |
| 3" | 18.5 | 3.26 | 15 | 360 | 480 | 11,520 | 300 | 540 | 10,800 | 0.7344 |
| 3.5" | 21.7 | 3.82 | 13 | 312 | 416 | 9,984 | 260 | 468 | 9,360 | 0.8274 |

[1]Conditioned thermal values were determined by ASTM Test Method C518 at 75℉ mean temperature. Test specimens were conditioned in accordance with procedures outlined in ASTM C1289, Section 11.1.2.1.