

INSOFAST PANEL EXTERIOR INSTALLATION



InSoFast Panels do more than insulate. They integrate framing, moisture control, and solid attachment points into one easy-to-install solution.

This Guide

- Tools & Supplies
- Wall Preparations
- Panel Installation
- Finishing Details

RESOURCES



888-501-7899



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YouTube Channel

Simply Engineered



InSoFast Panel Exterior Installation Guide

Tools & Supplies

- Screw gun
- Construction screws
- Optional nail gun
- Long snap off blade utility knife
- Saw – hand, jig, table saw, etc.
- Optional Hot Knife
- Gap and crack foam for sealing corners, openings and at the top of the wall

Project Estimation

The MAX-3.75 and EX-2.5 InSoFast Panels are optimized for exterior usage. If you choose to use the InSoFast Plus method with additional sheet foam, MAX-3.75 or UX-2.0 Panel, please note all references and drawings are assuming the EX-2.5 panel thickness.

InSoFast Panels are generally estimated the same as siding. Take the total square footage of walls less openings (openings calculated with 6" of waste on all sides). Gable end square footage can be estimated by adding 2' to the height and width. Do not overestimate. Miscut panels can be glued back together and reused.

Wall Preparations per Industry Standards

All openings, penetrations, etc. should be properly flashed, sealed, and integrated into the weather resistant air barrier (WRB) so the wall assembly is water tight before InSoFast panels are installed. The WRB products should be installed according to industry standard practices and are independent of InSoFast insulation panels.

Why Chose InSoFast for Exterior Continuous Insulation?

InSoFast installs quicker and has more benefits than traditional continuous insulation.

- Built in studs eliminate the need for furring strips!
- InSoFast can be installed with standard construction screws or framing nails.
No more expensive structural screws!
- Breathable insulation allows outward drying – you will not end up with the wet diaper effect!
- Built in rainscreens!
- Brings the dew point outside of your WRB!

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Selecting the Right InSoFast Panel

Max 3.75 - R-15.9

The MAX-3.75 panel alone provides more insulating power than a R-20 framed wall. This panel features a rainscreen on the front and the back of the panel to allow free drainage on both sides of the panel. It also features double capillary breaks on the tongue and groove.

EX-2.5 – R10.5

The Exe-2.5 panel provides as much insulating power as a R-15 framed wall. This panel features a rainscreen on the front and the back of the panel to allow free drainage on both sides of the panel.

UX-2.0 – R-8.5

The UX-2.0 panel provides more insulating power than a R-11 framed wall. This panel features a rainscreen on the back side of the panel to allow free drainage.

Basic Installation Procedure

Snap a straight line for the metal flashing at the bottom of the wall so the bottom of the InSoFast panel is not exposed.

It is recommended to start at the center of the wall with a full panel and working outward in both directions. Stagger or off-set the panels on the second and subsequent rows to form a running bond interlock pattern, making the panel even more weather tight.

Orientation of Panels

The word “InSoFast” must face outward toward the installer with the exposed ribbed side of the studs going against the wall or sheathing.

InSoFast panels are installed with the 4’ width dimension running horizontally. In the 2’ height dimension, studs and moisture control channels all run vertically.

For easier installation, start screws in studs prior to installing. Do not install the upper row of fasteners in the InSoFast panel until the panel above has been set in place.

Basic Install



Panel Layout From Center



Orientation of Panels



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Top of the Wall

Prior to installing the top row of InSoFast panels, apply a continuous bead of foam sealant. Caulk can be used instead of spray foam for the MAX-3.75 panels.

Seal all vertical raceways at the top of the wall with foam sealant. This can be done after installation by drilling a hole to inject foam sealant.

Top of the Wall



Installing Panels over Framed Walls

Screw Selection

Screws must be minimum No. 9 Corrosion-Resistant Construction Screws to penetrate the framing a minimum of 1".

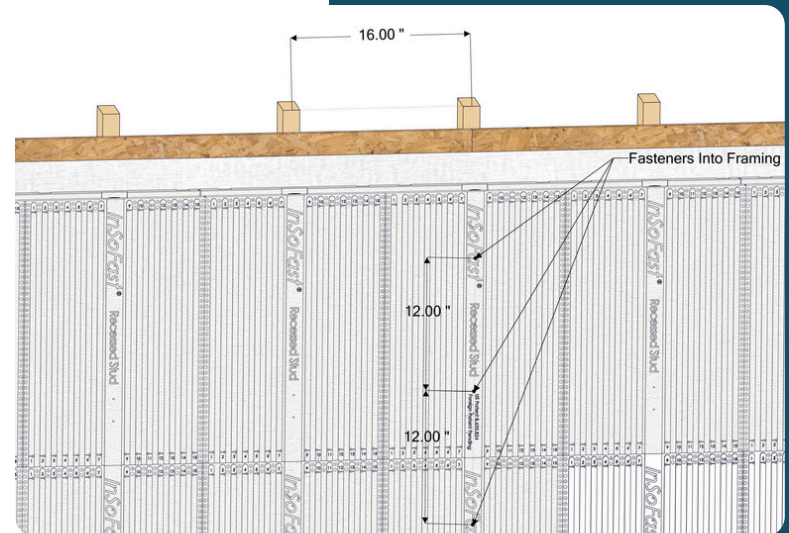
Screws



Screw Attachment Pattern for 16" O.C. Framing

InSoFast studs are 16" o.c. Install the first panel so the built-in studs line up with and attach to the wall's studs. Screw the InSoFast Studs at 12" O.C. per Code Report. The number of screws may be dependent on wind loading requirements.

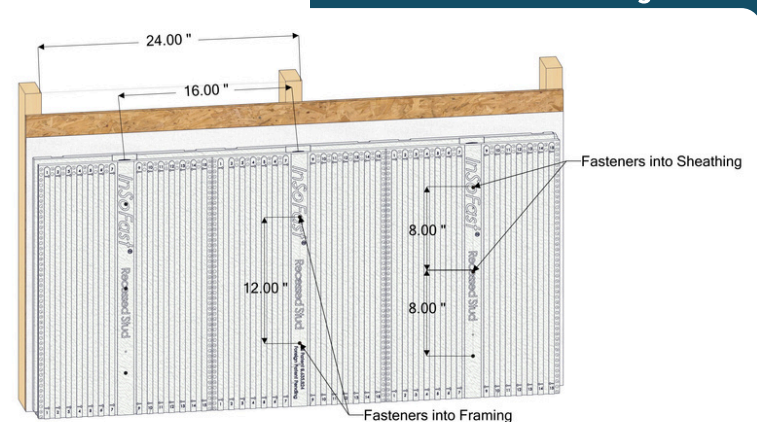
16" O.C Framing



Screw Attachment Pattern for 24" O.C. Framing

Attaching to 24" o.c. framing requires a screwable structural sheathing, such as OSB, plywood, or SIPs. Typically, the InSoFast studs will be screwed at 8" O.C., but the number of screws is dependent on wind load requirements.

24" O.C Framing



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Installing Panels over Concrete or Masonry Walls

Adhesive Attachment

We have tested and only recommend PL Premium 3X Construction Adhesive®, or adhesive supplied by InSoFast for bonding to the InSoFast studs. Other formulas and brands may not work as expected. Follow adhesive manufacturer's instructions. Cure time is dependent on temperature and humidity. Ensure sufficient time for the adhesive to set and cure before attaching exterior finishes or use mechanical fasteners. On the back of the panel, apply a 3/8" bead of PL Premium 3X along the dove-tailed ribbing of each InSoFast stud. Rougher or uneven surfaces may require a thicker bead.

Press panels firmly into place against the wall. On windy days, the panels may need supplemental bracing or mechanical attachment to secure the panels until the adhesive has set.

Mechanical Attachment

If you choose to mechanically attach InSoFast panels to concrete or masonry walls, screws are to be placed 12" o.c. along the InSoFast studs. Concrete/masonry screws must penetrate a minimum of 1" into substrate. Powder actuated tools are not recommended.

Installing Corners

Outside Corner

Overlap the panels past the corner by the thickness of the panel, creating an overlapping butt joint. Leave a 1/4" gap at the butt joint for foam sealant. Corner posts can be attached with long screws directly back to the framing when an InSoFast stud is not located near enough to the corner for siding attachment. Sheet metal flashing may be added behind the corner post for siding fastening at the corner post.



Inside Corner

Place the InSoFast panels together in the corners, leaving a ¼” gap at the butt joint for foam sealant. Sheet metal flashing may be added to provide attachment for the corner post and siding.

Window Detailing Options

Outset Windows

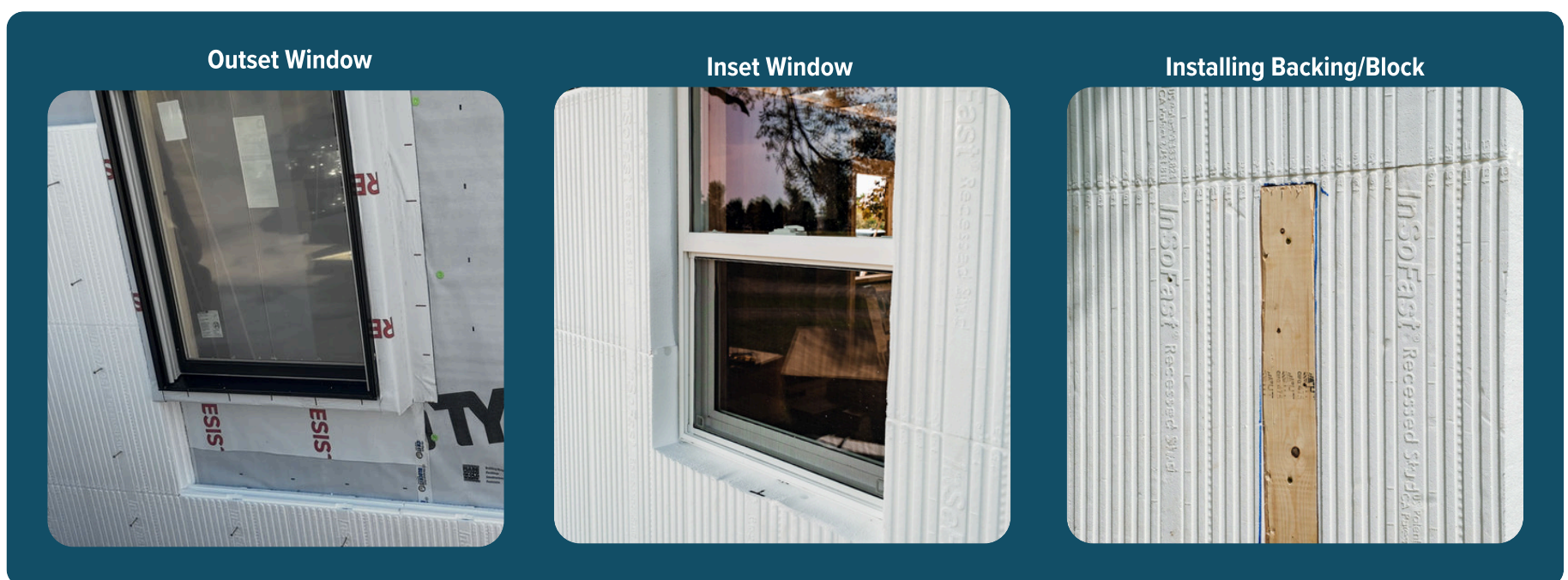
An outset window is installed with the nailing flange flush with the front face of the InSoFast panels. This is done by bucking the window out with wood framing. Install window and flashings as per window manufacturer’s installation instructions prior to installing InSoFast panels. See www.InSoFast.com for more window options and details.

Inset Windows

An inset window is installed with the nailing flange flush to the exterior sheathing layer of the wall. It requires sill and jamb extensions or custom bent sheet metal trim. Install window and flashings as per window manufacturer’s installation instructions and install optional sill/jamb extensions prior to installing InSoFast panels. See www.InSoFast.com for more window options and details.

Installing Backing/Block

In areas where additional support is required, a hot knife can be used to carve out the exterior of the InSoFast panels. Backing/blocking can be installed flush with the face of the panels and be attached with screws into the sheathing.



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Installing Exterior Finishes

Horizontal Siding

Horizontal siding can be installed as it would be on a traditional framed wall. Use corrosion resistant screws or nails that penetrate a minimum of 1" into the InSoFast Stud.

Vertical Siding

Vertical siding requires horizontal furring strips to be attached to the InSoFast Studs with corrosion resistant screws or nails to penetrate a minimum of 1" into the InSoFast Stud. Refer to siding manufacture for furring strip size.

Stucco or Adhered Stone

Stucco or adhered stone can be installed in 2 different ways – Using wire lath or with cement board/backer board.

For Wire Lath installation, attach the lath to the InSoFast Stud with corrosion resistant lath screws to penetrate a minimum of 1" into the stud. To maintain drainage, tar paper can be installed underneath the lath. Apply a base coat over the lath, then apply stucco or adhered stone per manufacturer's instructions.

For Cement Board/Backer Board installation, attach the board to the InSoFast Studs with corrosion resistant cement/backer board screws that penetrate a minimum of 1" into the stud. The stucco or adhered stone can then be applied per manufacturer's instructions.

Please note that InSoFast is rated to support adhered stone up to 15 pounds per square foot

Termite Control

Termites are controlled by using a termite shield flashing at the bottom of the wall. Additional termite/insect mesh may be wrapped around the bottom of the InSoFast panels to prevent termites from entering. In termite infested areas it is not recommended to install InSoFast below grade.

Horizontal Siding



Vertical Siding



Stucco or Adhered Stone



Termite Control



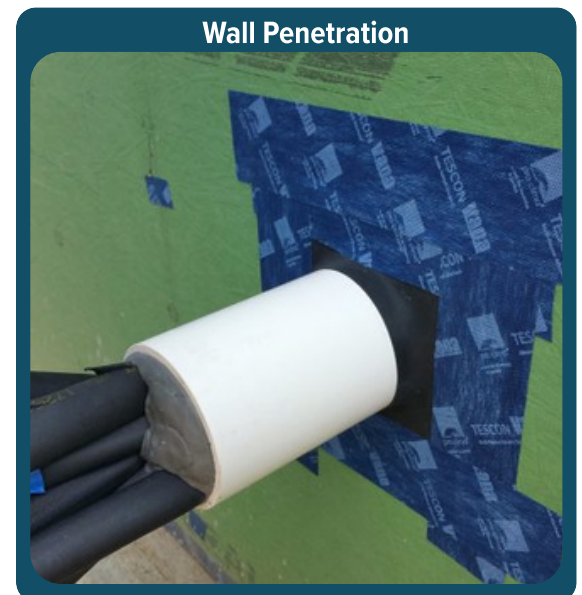
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Through Wall Penetrations

Mechanical penetrations are treated as they would be for typical construction.

All through-wall penetrations should be installed and sealed back to the WRB layer before the InSoFast panels are installed. Install penetrations per manufacturer's installation instructions. Cut and fit the InSoFast panel around the penetration, leaving a ¼" gap. Fill the gap between the penetration and the InSoFast panel with a foam sealant.



Cold Weather Installation

If you opt to use nail guns to install InSoFast panels and/or siding, it is only recommended when temperatures are above 60° F. Smaller nail size and shank diameter will perform better at lower temperatures. It is up to the contractor, and/or building official to determine the suitability for the use of nails when installing siding. It is important for the contractor to verify the fasteners do not crack the stud and they are not over-driven or under-driven into the stud.

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Nationwide Code Compliance: DrJ Engineering TER # 1910-03

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