



FOAMULAR[®] Installation Guidelines



FOAMULAR® Installation Guidelines

The intent of this document is to provide guidance on the installation of Owens Corning® FOAMULAR® Insulation in residential and light frame commercial construction. This document, the reference documents cited herein and any/all information found on product packaging, literature, and videos collectively constitute the “manufacturer’s installation instructions” referenced in the ICC family of model codes – specifically the Intl. Energy Conservation Code (IECC), Intl. Residential Code (IRC) and Intl. Building Code (IBC).

General Guidelines

Optimum performance of Owens Corning® FOAMULAR® Insulation products is dependent on 1) selection of the correct product for the assembly or application into/on which it is to be placed and 2) following these installation instructions. General guidelines which apply to both selection and installation include:

- The framed assembly or masonry surface onto which the Insulation is to be applied must be flat. FOAMULAR® Insulation is a rigid product and not intended for uneven surfaces. Any deformation of the application surface can result in a weakening of the attachment points and/or cracking of the insulation.
- There should be no voids or gaps in the insulation itself, around any objects that penetrate the insulation or at the interface of the insulation and framing members.
- FOAMULAR® Insulation is not structural. Structural sheathing or code compliant bracing must be used when applying to wood or metal framing.

FOAMULAR® Product and Accessories Guide Thickness requirements vary by application and energy codes thermal resistance value: R-5 per inch of thickness Minimum compressive strength: F-150 and INSULPINK® Foam Insulation Board= 15 psi Minimum compressive strength: F-250 and Insul-Drain® Drainage Board= 25 psi					
	F-150	F-250	Insul-Drain®	INSULPINK®	ACCESSORIES
Above grade Selection of F-150 versus F-250 product is dependent on minimum compressive strength requirements, based on chosen cladding type. Consult cladding manufacturer for recommendation.	✓	✓			<ul style="list-style-type: none"> ▪ ProPink ComfortSeal™ Sill Gasket ▪ ProPink ComfortSeal™ Framing Gasket ▪ FlashSealR® Flashing Tape ▪ 1" diameter cap nails at a length sufficient to penetrate the framing a minimum of ¾"
Exterior below grade Insul-Drain® Drainage Board incorporates precision-cut channels to drain water from vertical foundation walls and is recommended for use in areas where water drainage is a concern.		✓	✓		<ul style="list-style-type: none"> ▪ Adhesive compatible with polystyrene or foamed plastics as noted by its manufacturer <ul style="list-style-type: none"> ▪ LOCTITE® PL® 300 VOC Foamboard Adhesive ▪ Other equivalent alternative
Interior above/below grade masonry wall FOAMULAR® applied in conditioned space must be covered by a 15-minute thermal barrier, such as gypsum board. INSULPINK® Foam Insulation Board is 1½" thick, provides a thermal resistance of R-7.5, and incorporates pre-cut slotted edges ready to accommodate 1" x 3" wood furring strips for easy installation of finished covering.	✓			✓	<p>F-150</p> <ul style="list-style-type: none"> ▪ Adhesive compatible with polystyrene or foamed plastics as noted by its manufacturer <ul style="list-style-type: none"> ▪ LOCTITE® PL® 300 VOC Foamboard Adhesive ▪ Liquid Nails® Projects and Foamboard Adhesive ▪ Other equivalent alternative <p>INSULPINK® Foam Insulation Board</p> <ul style="list-style-type: none"> ▪ 2½" minimum length concrete fasteners ▪ 1" x 3" wood furring strips
Below concrete slab Consult a Structural Engineer for compressive strength requirements for your specific application. 40psi - 100psi compressive strength material is available for high load applications.		✓			<ul style="list-style-type: none"> ▪ Polyethylene vapor barrier

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Additional Considerations

- This product is not required to be installed by someone trained or certified by the manufacturer.
- As is, this product undergoes no chemical reaction and is in its final form when purchased. There is no need to evacuate the building during installation.
- FOAMULAR® cannot be in contact with hot surfaces such as chimneys or heat sources over 165 degrees F.
- Air Sealing – in applications that require air sealing, use Owens Corning® HomeSealR® Foam Joint Tape to seal joints between boards. Use Owens Corning® FlashSealR® Foam Flashing Tape to seal FOAMULAR® to other substrates.
- Use HomeSealR® to repair breaks. Replace foam into the board and then tape with HomeSealR® to repair holes.
- Avoid leaving FOAMULAR® and tapes exposed for extended periods of time.
- For use in exposed applications refer to Code Evaluation Report UL-ER8811-01 and local building codes regarding the need for an ignition barrier.
- To cut boards to size, score with box knife then snap at the score.
- Use a 4"-6" serrated edge knife to cut holes or other penetrations through FOAMULAR®.
- Termites: in areas designated as very heavy infestation, model and local codes have specific rules regarding termites. These include inspection strips, chemical ground treatment and treated lumber or metal framing. Please consult local codes or code official for details.

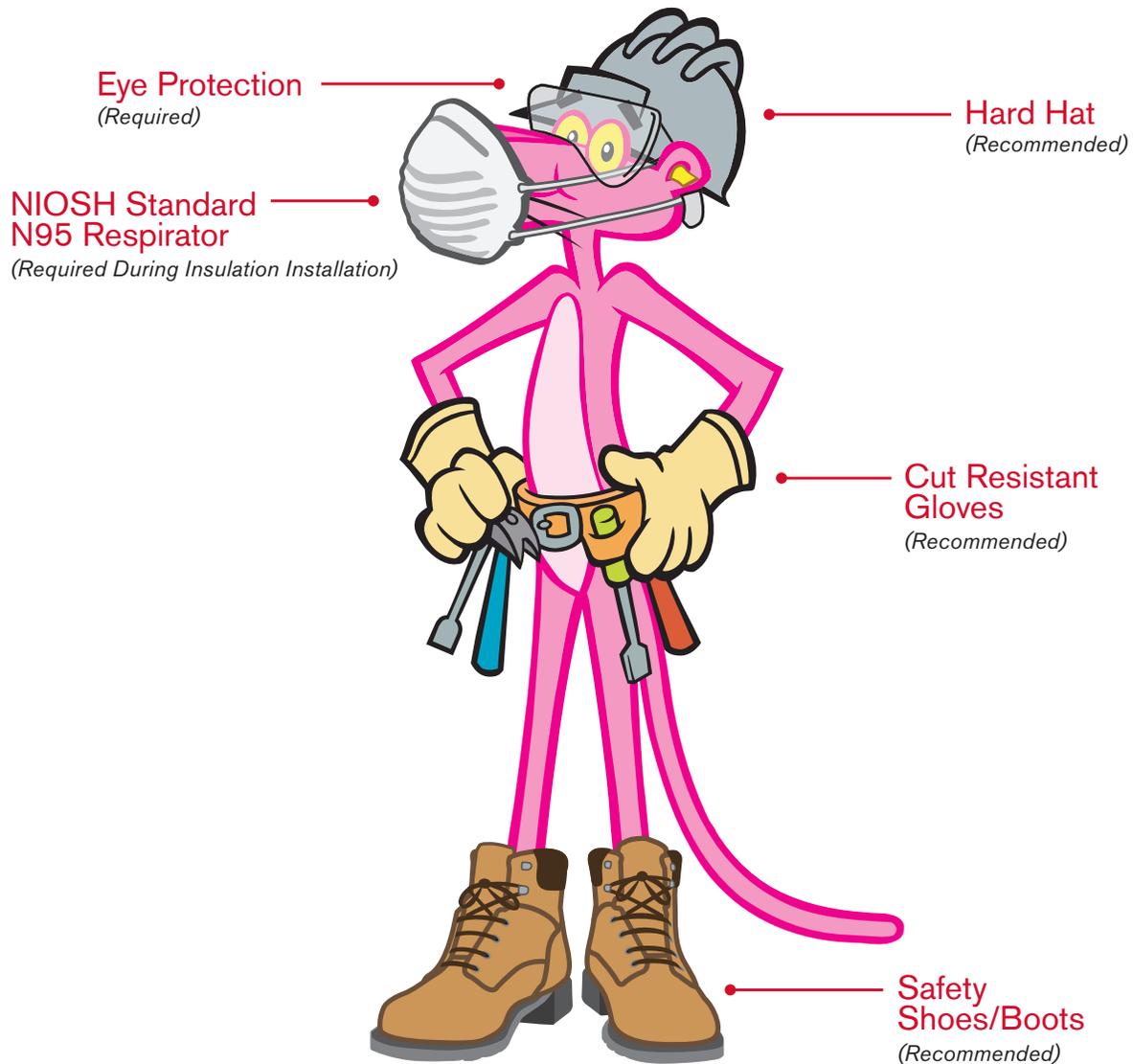
Guidelines for Estimating Quantities

- Number of FOAMULAR® boards for each story = Building perimeter (ft) ÷ 4
*Be sure to account for any additional FOAMULAR® boards needed to cover rim joists or irregular details specific to your job
- Number of Nails (4' x 8' FOAMULAR® boards) = Number of FOAMULAR® boards X 64
- Number of ProPink ComfortSeal™ Sill Gasket rolls = Building perimeter (ft) ÷ 82
- Number of ProPink ComfortSeal™ Framing Gasket rolls = [2 X Height of all exterior walls (ft) + 3 X Length of all exterior walls (ft) + perimeter of all doors and windows (ft) ÷ 50
- Number of HomeSealR® Foam Joint Tape rolls = Number of FOAMULAR® boards x 12 ÷ 180
*Be sure to account for any additional joints between FOAMULAR® boards due to covering rim joists or irregular details specific to your job
- Number of FlashSealR® Flashing Tape rolls = Perimeter of all doors and windows (ft) ÷ 90

FOAMULAR® Installation Guidelines

Personal Protective Equipment Requirements

The use of personal protective equipment in a construction area is very important to your safety



Other Precautions

CUTS — SURVEY THE WORK AREA FOR EXPOSED NAILS AND TRUSS CONNECTOR PLATES THAT COULD CAUSE A CUT.

Installation for Above Foundation Exterior Walls

Basic Tools:

- Tape Measure
- Utility Knife
- Straightedge
- Hammer
- J-Roller
- 4"-6" Serrated Knife

Special Equipment:

- Pneumatic cap nail gun
- BOSTITCH® N66BC-1 Cap Nailer or equivalent

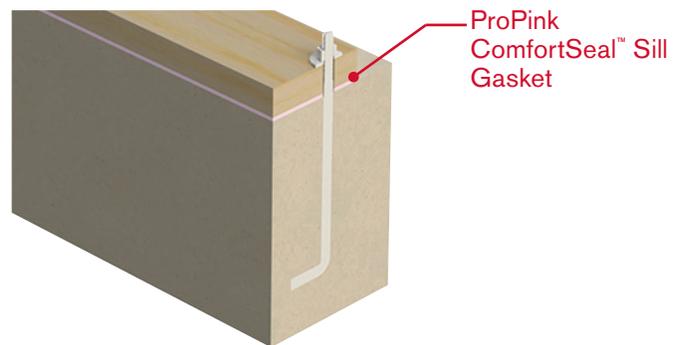
Site Preparations:

- Ensure that the framing is clean and dry.
- Check that framing provides a flat, level surface. Repair or replace any warped or damaged framing.
- Remove obstacles to the work area, including all potential trip hazards.
- Verify that ladders and/or scaffolding are in safe, working condition.

Step 1:

Build the foundation walls and install ProPink ComfortSeal™ Sill Gasket at the top of the foundation wall beneath the sill plate. Install the sill plate.

Note: When the top of the foundation wall is rough or uneven, two layers of ProPink ComfortSeal™ Sill Gasket may be required to achieve a proper seal.



Step 2:

Build the floor structure and apply the floor sheathing.



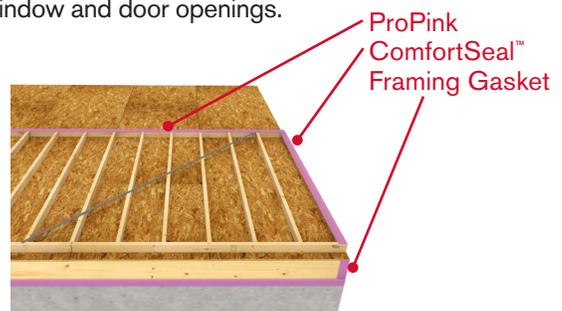
Step 3:

Frame the wall structure and make square (consult local building codes or Structural Engineer to determine bracing strategy). FOAMULAR® Sheathing can be installed over OSB or alternative bracing methods. Steps 4 through 7 show installation of ProPink ComfortSeal™ Framing Gasket and FOAMULAR® Sheathing prior to wall tilt-up. Alternatively, ProPink ComfortSeal™ Framing Gasket and FOAMULAR® Sheathing can be installed after the wall is erected.



Step 4:

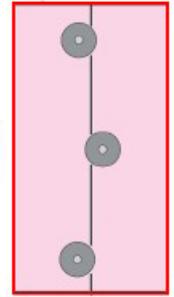
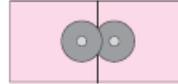
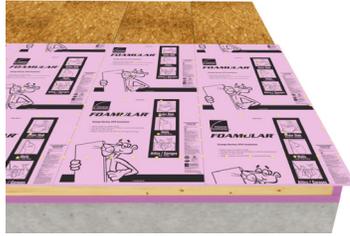
Install the ProPink ComfortSeal™ Framing Gasket to the outside of the wall frame and floor rim joist as shown. Also be sure to install ProPink ComfortSeal™ Framing Gasket around all window and door openings.



Installation for Above Foundation Exterior Walls

Step 5:

Fasten insulating sheathing to the wall frame using 1" diameter cap nails at a length sufficient to penetrate the framing a minimum of 3/4". Cap nails must be spaced no more than 6" on center on the perimeter and 12" on center mid-board at intermediate framing members sheathed with FOAMULAR®. As shown, the FOAMULAR® board length extends below the base of the wall by an amount sufficient to cover the floor rim joist when the wall is erected. Alternatively, cut pieces of FOAMULAR® can be used to cover the rim joist after the wall is erected.



Nailing at square edge and tongue and groove joints:

Never set nails so that washers overlap the edges of the sheathing. This prevents proper joining of boards.

Always stagger the nail pattern at the intersection of square edge and tongue and groove joints as shown.

Step 6:

Erect the wall and temporarily brace it securely. Complete nailing the FOAMULAR® Insulating Sheathing to the floor rim joist.



Step 7:

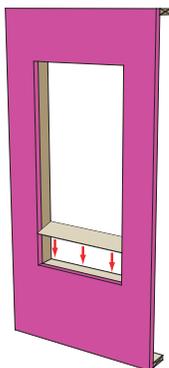
Seal all joints between FOAMULAR® boards using HomeSealR® Foam Joint Tape. Smooth the joint tape onto the surface using a J-Roller to eliminate air bubbles and ensure a water and air tight seal. Using a serrated knife, cut out openings for all windows and doors.



HomeSealR® Foam Joint Tape

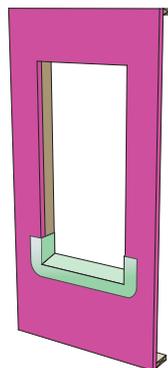
Step 8:

Install bevelled sill as backdam.



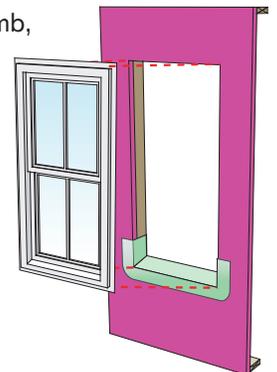
Step 9:

Apply sill flashing.



Step 10:

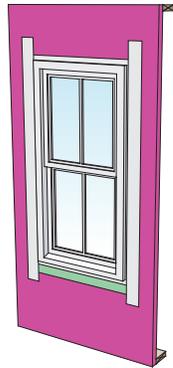
Install window plumb, level and square per manufacturer's instructions.



Installation for Above Foundation Exterior Walls

Step 11:

Apply self-adhered jamb flashing.



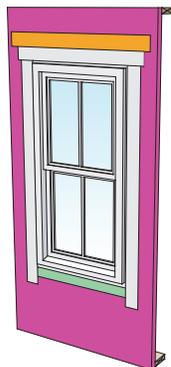
Step 12:

Install drip cap (if applicable); install self-adhered head flashing.



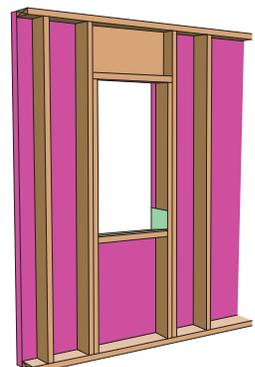
Step 13:

Tape (FlashSealR® Foam Flashing Tape) top edge of head flashing.



Step 14:

Interior view of bevelled sill backdam and sill flashing.



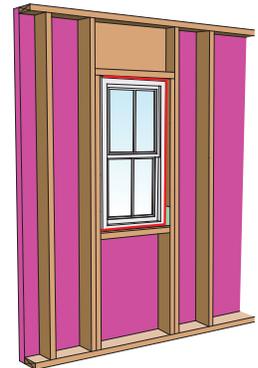
Step 15:

Interior view of window installed.



Step 16:

Air seal window around entire perimeter from interior with non-expanding foam.



Installation for Exterior Foundation Walls

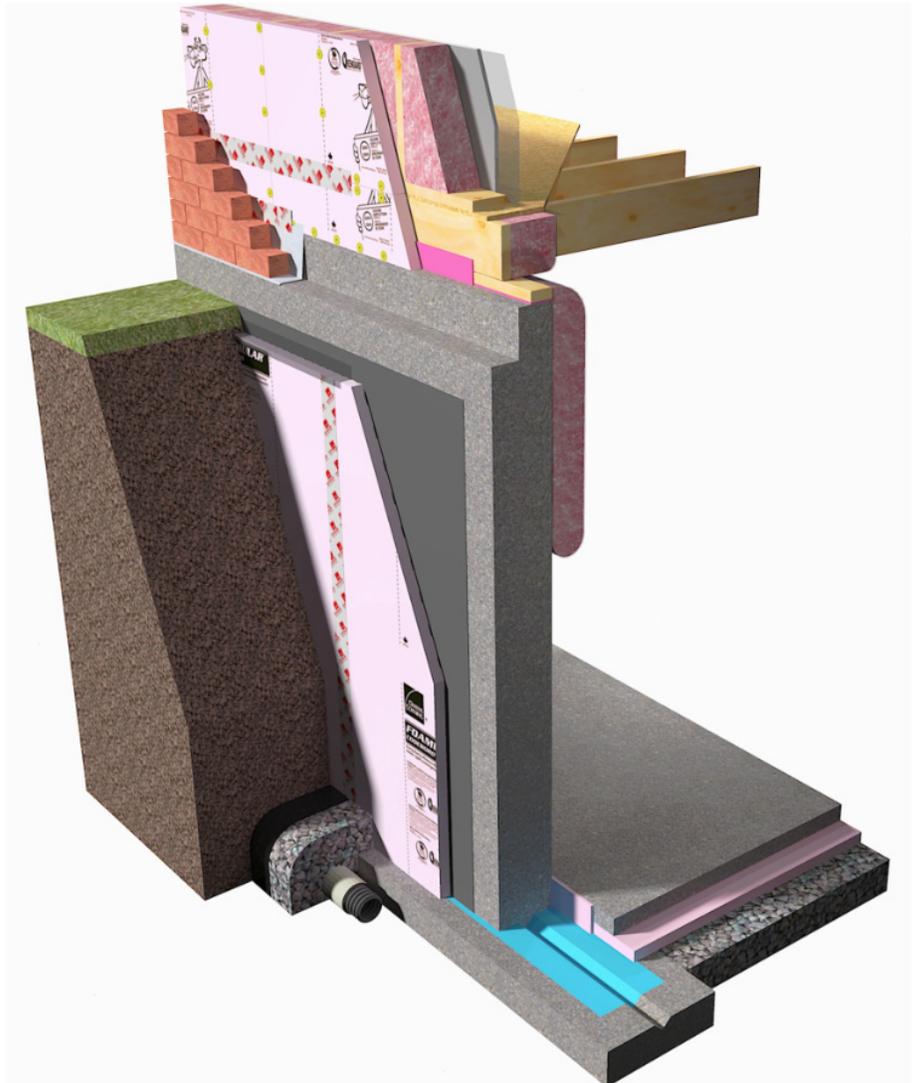
Basic Tools:

- Tape Measure
- Utility Knife
- Straightedge
- Caulk Gun
(for adhesive)

Site Preparations:

- Ensure that the substrate is clean and dry.
- Remedy all protrusions or surfaces that are not flat.
- Remove obstacles to the work area, including all potential trip hazards.
- Verify that ladders and/or scaffolding are in safe, working condition.

- Foundation walls must be sealed prior to installation of FOAMULAR® Boards. FOAMULAR® Boards will not act as the moisture barrier in this application.
- Verify compatibility of FOAMULAR® Boards to sealer. Sealer may need to be fully cured prior to application of FOAMULAR® Boards.
- Prior to backfilling, install FOAMULAR® Boards Insulation to the exterior, from top of footing to the full height of the foundation wall.
- Secure FOAMULAR® Boards Insulation to foundation walls with construction adhesive compatible with polystyrene or foamed plastics as noted by its manufacturer (LOCTITE® PL® 300 VOC Foamboard Adhesive, or equivalent alternative) by applying 3/16" bead of adhesive with lines 6-12" apart (follow adhesive manufacturers' application instructions). If compatible, sealer may also be used to hold FOAMULAR® Boards in place. Mechanically brace the FOAMULAR® Boards to hold it in place while the adhesive cures.
- It is suggested that a bead of waterproof sealant be applied to the top edge of the FOAMULAR® Boards, as well as vertically where the boards join each other in order to retard water penetration to the foundation wall.
- Apply FOAMULAR® Boards Insulation to foundation wall within 15 minutes after adhesive is applied.
- All seams between boards should be butted tightly. Taping of seams not required.
- Wait 24 hours after FOAMULAR® Boards installation to backfill foundation, in order to allow proper adhesive cure time. Backfill carefully to avoid damage to FOAMULAR® Boards Insulation.
- FOAMULAR® Boards that is exposed above grade must be protected from UV by a cementitious product or coil stock.



Installation for Below Concrete Slab

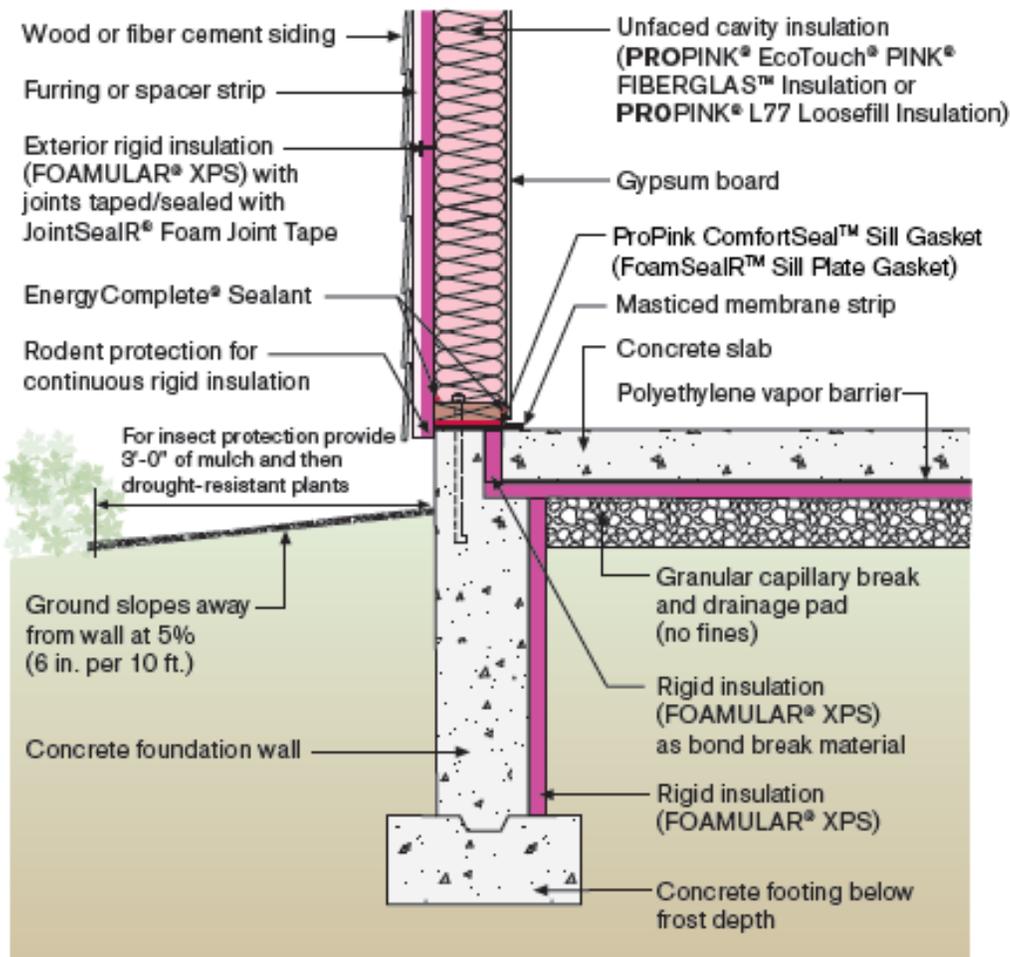
Basic Tools:

- Tape Measure
- Utility Knife
- Straightedge
- 4"-6" Serrated Knife

Site Preparations:

- Ensure gravel fill is tamped and level.
- Remove obstacles to the work area, including all potential trip hazards.

- Install FOAMULAR® Insulation after gravel fill has been built up to grade, and thoroughly tamped.
- Lay FOAMULAR® Insulation in place with edges pressed together and butting the foundation wall or adjacent vertical insulation.
- A small piece of tape (construction or duct tape) may be used to hold butt joints together while walking on during installation and in windy conditions.
- If installing two layers of FOAMULAR® Insulation, off-set the seams for the second layer starting in the corner.
- Place polyethylene vapor barrier on top of FOAMULAR® Insulation. Overlap seams 6"-12" and seal with tape. Tape perimeter of the vapor barrier over the top of the concrete forms for the floor slab.
- Pour concrete slab to cover all FOAMULAR® Insulation.





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