



Styrofoam SIS™
Structural Insulated Sheathing

Installation and Usage Guide



Table of Contents



- **Use and storage recommendations**
- **Materials checklist**
- **Installation:**
 - Step 1: Measuring and Cutting
 - Step 2: Installing Panels
 - Step 3: Fastening
 - Step 4: Taping
 - Step 5: Flashing
- **Special instructions**
 - Stucco Systems
- **Additional information**

Recommended Usage



Recommended for:

- **IBC Type V construction or IRC**
- **Above Grade walls**
 - Use as braced wall panels (intermittent bracing) integrated with other rigid insulated sheathing
 - Use as continuous structural bracing method (all SIS on a wall).
- **Attics**
 - Use without a protective thermal barrier or ignition barrier on the interior of the building, including (but not limited to) knee and gable end walls
 - Attic space may be unventilated or ventilated

Not recommended for:

- **Claddings that require a 7/16" wood structural panel for nail backing**
 - Follow manufacturer's installations for all claddings
- **Can not be substituted for wood structural panel in IRC narrow wall details described in 2006 IRC R602.10.6.1 & R602.10.6.2**
 - However, SIS or other foam sheathings can be used on exterior of these wall details with the wood structural panel located on the interior.

Recommended Zones



- **Wind zones:** Use prescriptively in wind zones <110 mph (under the 2006 IRC)
(Use in higher wind zones requires an engineered design, Call Dow for allowable shear values)
- **Seismic zones:** Use prescriptively in Seismic Design Categories A, B and C (under the 2006 IRC)
(Do not use in higher seismic regions, D₀, D₁ and D₂ at this time)

Storage Recommendations



Avoid storage directly on the ground unprotected

- Product bundles are shipped from the factory in weather-tight packaging.
 - Normal care should be taken to avoid excessive moisture exposure (soaking) to unpackaged product.
 - Use of damaged product is dependent on the extent of the damage. Contact your Dow rep if there are concerns regarding product quality.

Maintain packaging protection until using the product

- Once removed from the protective bundle covering and installed on the wall frame, it can remain uncovered for up to 90 days of UV exposure



Materials Checklist



- **Work surface (sawhorses)**
- **Circular saw**
- **Straight edge/chalk line**
- **Safety glasses/goggles and gloves**
- **Measuring tape**
- **Pencil/chalk**
- **Approved fasteners (staples or nails)**
- **Pneumatic nail/staple gun**
- **WEATHERMATE™ Construction Tape (2 7/8 inches wide) – Tape Dispenser recommended**

Installation:

Step 1 – Measuring and Cutting



- **Wear safety gloves and eye protection**
- **Mark cut lines using one of two options:**
 - Use straight edge and chalk line
 - Drag the hook of a measuring tape along the printed side of the board while holding the other end of the tape
- **Cut boards on a flat, sturdy surface, using a circular saw**

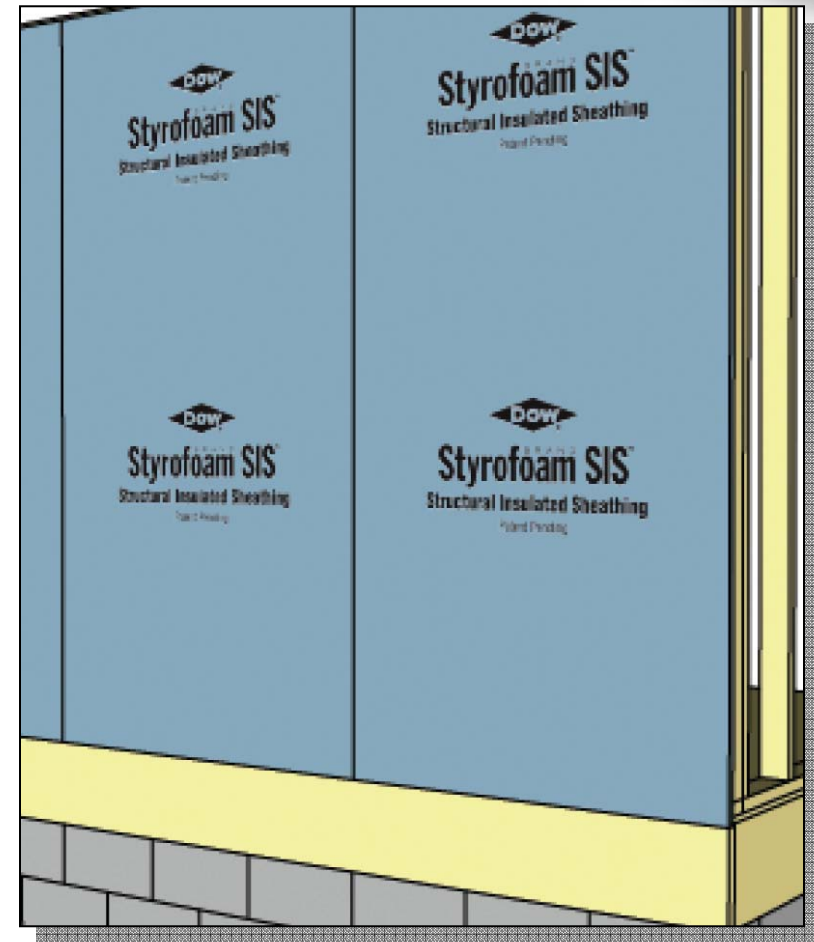
Installation:

Step 2 – Installing Panels

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Board orientation

- Install panels so that the foam faces the exterior of house
- For structural use, all edges must be fastened and backed by minimum 2” (nominal) framing.
- For non-structural uses, edges don't need to be backed.



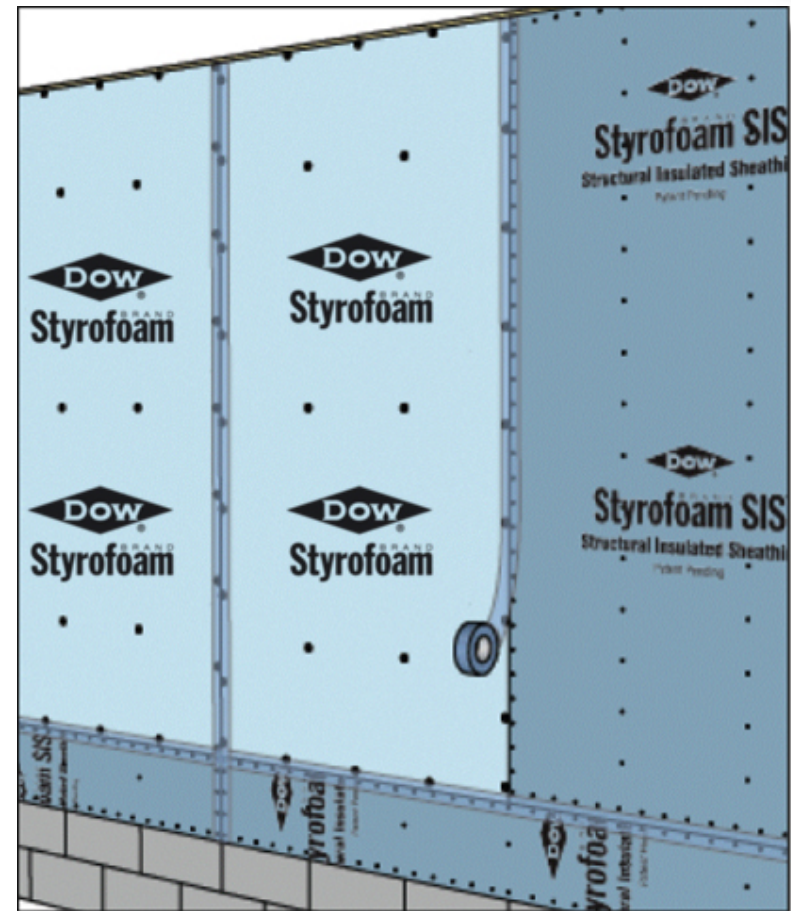
Installation:

Step 2 – Installing Panels (continued)

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When used in combination with nonstructural foam sheathing:

- Use STYROFOAM SIS™ Sheathing in areas where bracing is required.
- Supplement remaining wall with regular foam sheathing, such as STYROFOAM™ Residential Sheathing, Super TUFF-R™, or most other Dow rigid insulations.



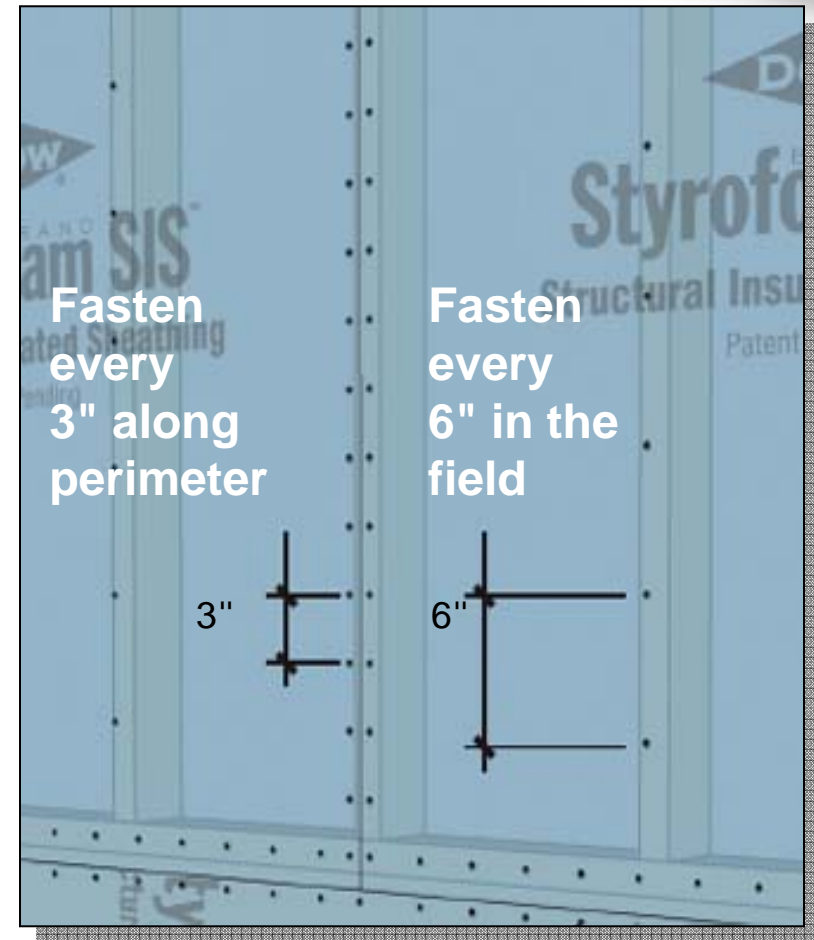
Installation:

Step 3 – Fastening



- Fasten boards using approved nails or staples every 3" around the perimeter of the board
- Nail or staple every 6" in the field of the board
- A 3-3 pattern may also be used for staples, resulting in lower bracing percentage requirements (*Please refer to ESR 2436 at www.dowsis.com or www.icc-es.org*)

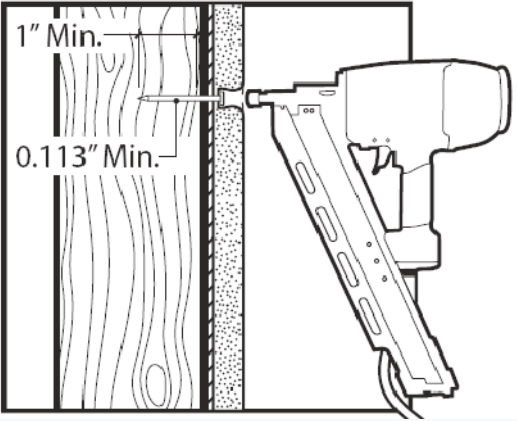
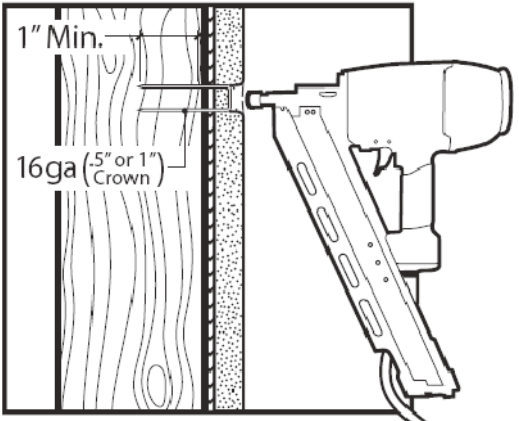
NOTE: STYROFOAM SIS™ Panels used in non-structural areas may be installed using fasteners spaced 6" at the perimeter of the board and 12" in the field of the board.



Installation:

Step 3 – Fastening (continued)



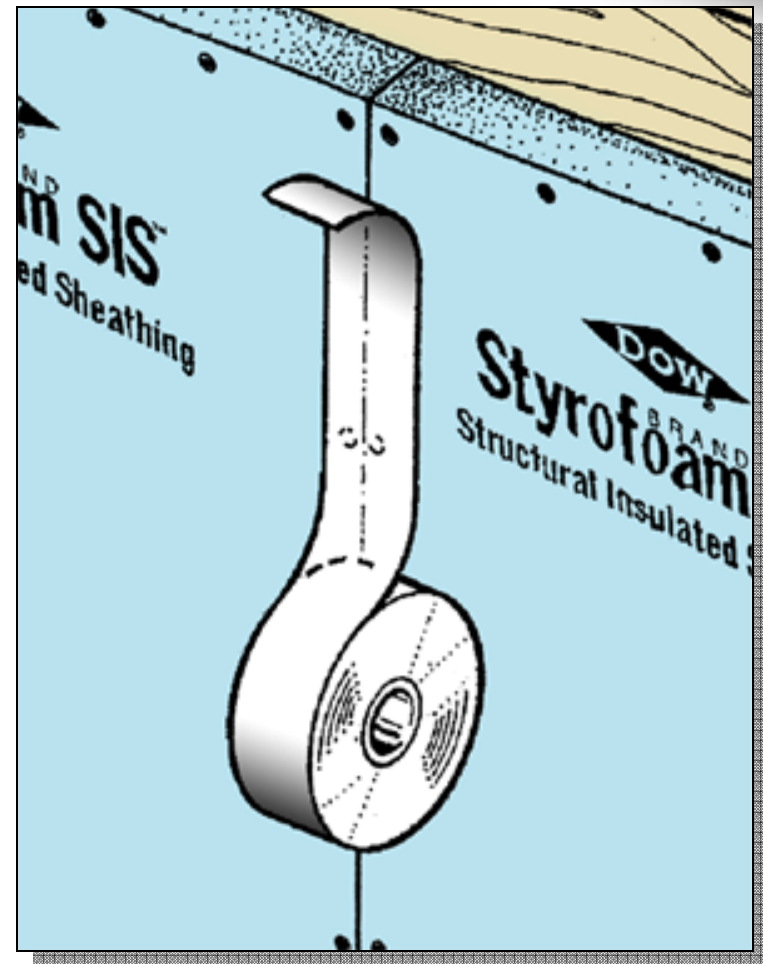
Product	Recommended Nail Type	Recommended Staple Type
0.5-inch STYROFOAM SIS™	Shank Diameter: 0.113 min. Stud Penetration: 1-inch min.	Gauge: 16 Crown: 0.5-inch or 1-inch Stud Penetration: 1-inch min.
1-inch STYROFOAM SIS™	Shank Diameter: 0.113 min. Stud Penetration: 1-inch min.	Gauge: 16 Crown: 0.5-inch or 1-inch Stud Penetration: 1-inch min.
		

Installation:

Step 4 – Taping

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- To ensure a water-resistive barrier, tape all joints with 2 7/8" WEATHERMATETM Construction Tape (Fasteners in the field of the board do NOT need to be taped to achieve WRB)
 - Center the tape over the joint to cover fasteners
 - When taping joints, use shingle fashion technique
 - Tape must be installed in temperatures between 15°F and 120°F (service temperatures of -40°F to 220°F)
- Housewrap can be installed over STYROFOAM SISTM Sheathing; however, it is not required to meet WRB requirements if all joints are taped (visit www.insulateyourhome.com for WEATHERMATETM Housewrap installation instructions)



Installation:

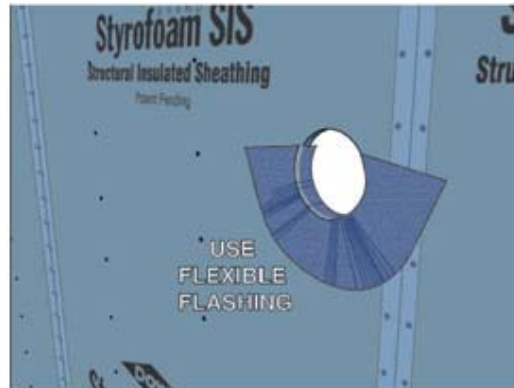
Step 5 – Flashing Details

For Windows, Doors & Penetrations

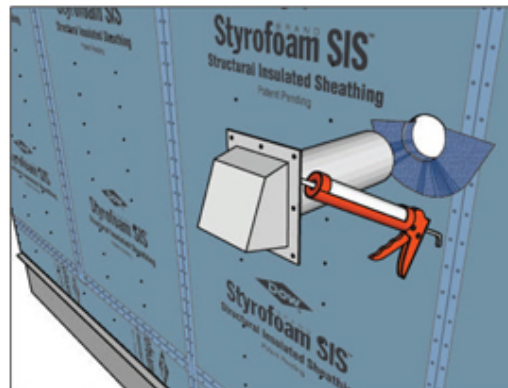


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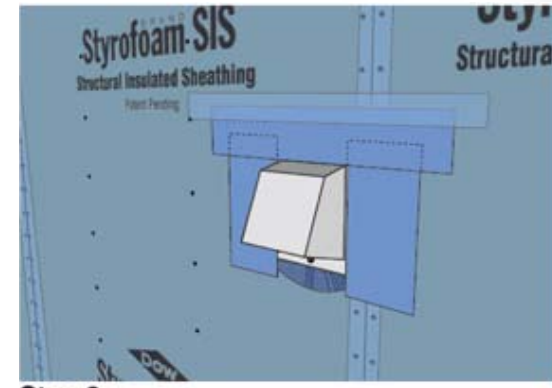
Figure 1 - Typical Penetration Flashing Detail - Flanged



Step 1



Step 2



Step 3

Figure 2 - Typical Penetration Flashing Detail - Unflanged

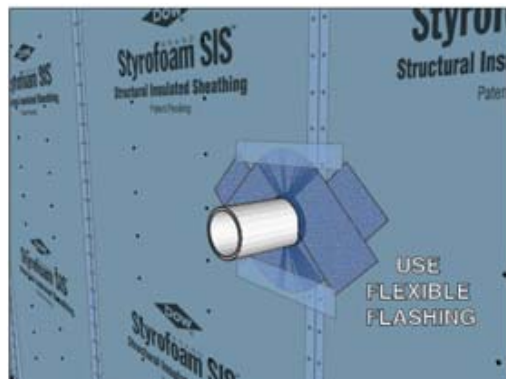
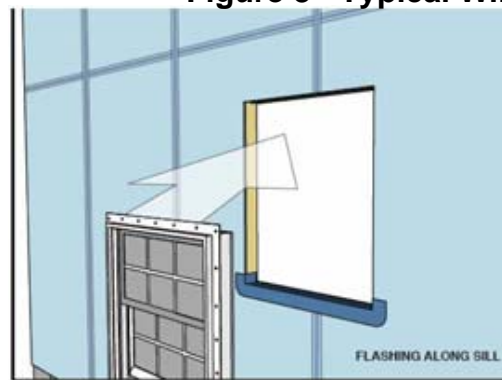


Figure 3 - Typical Window Flashing Detail



Step 1



Step 2

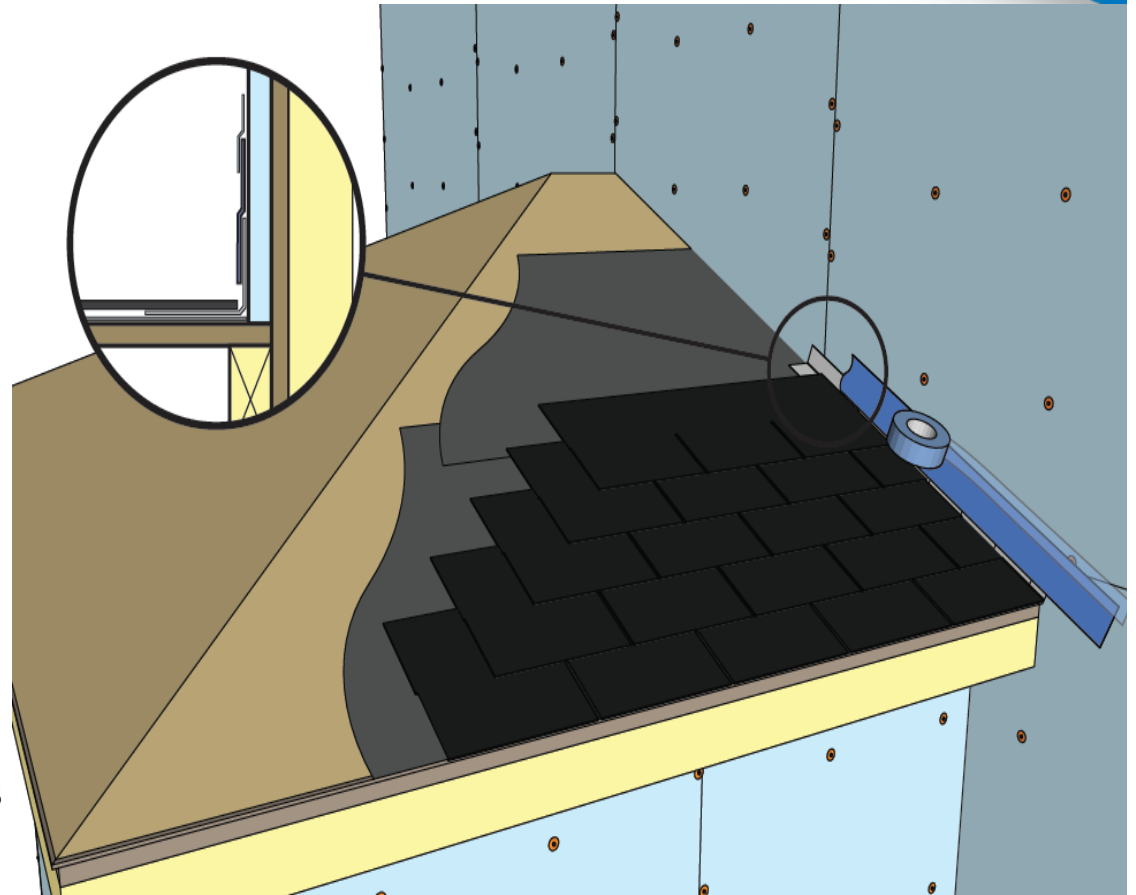
NOTE: Refer to WEATHERMATE™ flashing details for WEATHERMATE moisture warranty

STYROFOAM™ installed as a Water-Resistive Barrier

Step 1: Wall to Roof Flashing Detail

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- Tip: If sequencing allows, roofing paper should be turned up at the wall behind the STYROFOAM™ sheathing about 12"
- After STYROFOAM™ sheathing is in place, install the L-shaped step flashing at the wall
- Install 4" WEATHERMATE™ Straight flashing to cover the top edge of the step flashing
- Install WEATHERMATE™ Construction Tape to cover the top edge of the WEATHERMATE™ Straight Flashing
- Install shingles per manufacturer's recommendations



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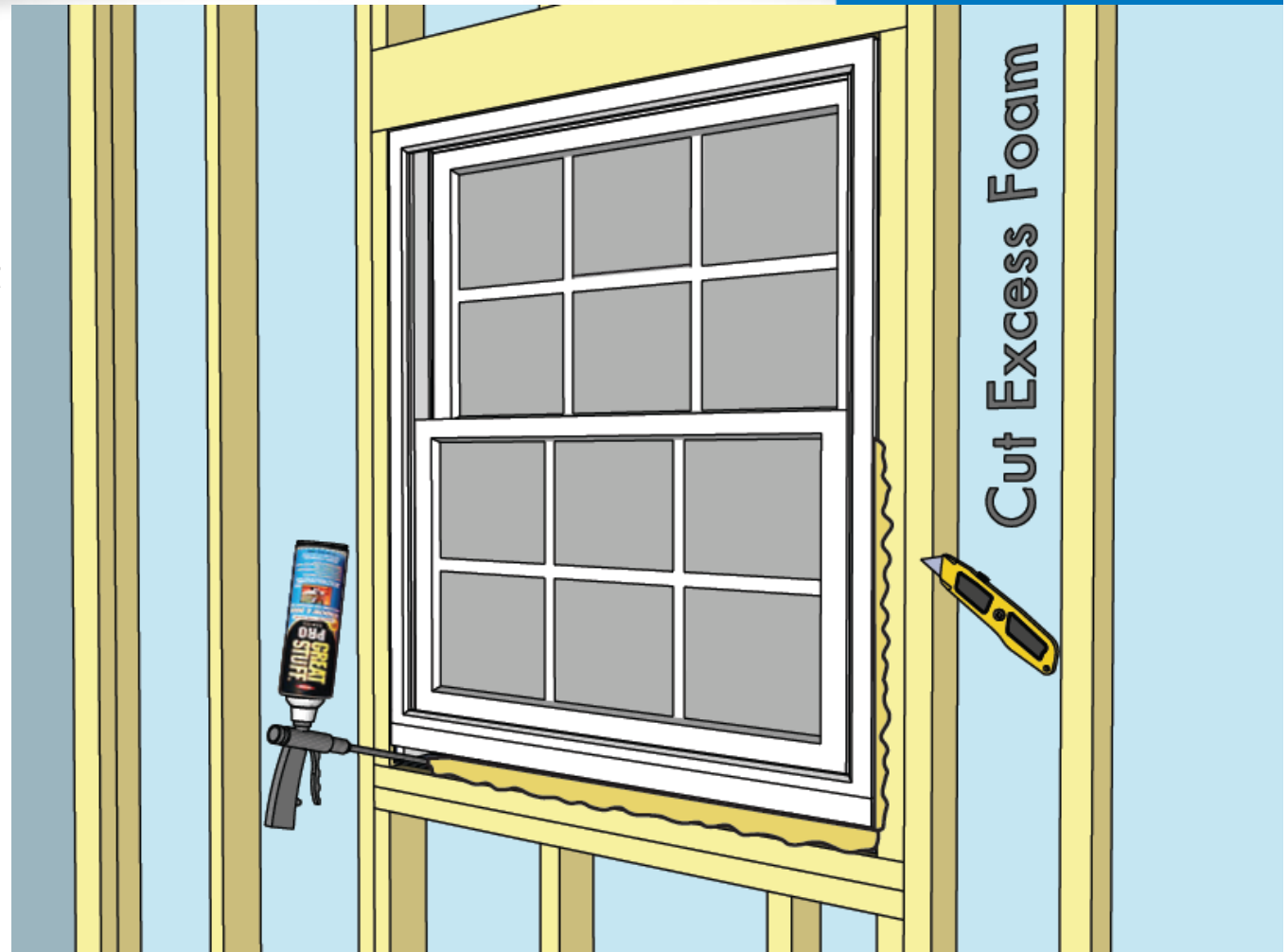
STYROFOAM™ installed as a Water-Resistive Barrier

Step 1: Air seal rectangular window interior perimeter



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- Insert GREAT STUFF PRO™ Window & Door nozzle into the gap to fill the width of the gap to a depth of about 1" (Do not fill entire cavity depth)
- Apply sealant to all 4 sides of a window opening
- Trim away excess with a sharp knife after foam is fully cured
- Tip: Apply GREAT STUFF PRO™ Window & Door Sealant between 40°F and 100°F



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STYROFOAM™ installed as a Water-Resistive Barrier

Step 3: Air seal door interior perimeter

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- Insert GREAT STUFF PRO™ Window & Door nozzle into the gap to fill the width of the gap to a depth of about 1" (Do not fill entire cavity depth)
- Apply sealant to 3 sides of a door opening
- Trim away excess with a sharp knife after foam is fully cured
- Tip: Apply GREAT STUFF PRO™ Window & Door Sealant between 40°F and 100°F



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Use with Non-standard Claddings



For proprietary stucco systems and all other cladding systems, follow manufacturer's installation instructions.

“Typical instructions” when installing STYROFOAM SIS™

Sheathing with stucco and thin stone systems:

For non-proprietary stucco systems such as three-coat stucco, the STYROFOAM SIS™ Sheathing system will provide one layer of water-resistive barrier. Provide additional WRB layer as recommended for 3-coat stucco and other cladding systems.

- Apply SIS directly to the exterior of the wall studs. Taping of all joints and flashing of penetrations provides one layer of water-resistive barrier.
- Provide a second layer of water-resistive barrier layer as required by the installation instructions.
 - SIS should not be used as a nail base, however, lathe or mesh may be stapled to the SIS between studs.



**For more information:
Contact: 1-866-583-BLUE (2583)**

Visit: www.dowsis.com

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•Warning: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

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