

Installation of DuPont™ Styrofoam™ Brand XPS Insulation Products as a Water-Resistive Barrier

For Single-Family Residential Buildings

Products for Installation

This installation guide covers single-family installation procedures for **Styrofoam™ Brand XPS Insulation Products**, including:

- **Styrofoam™ Brand Residential Sheathing**
- **Styrofoam™ Brand Scoreboard**
- **Styrofoam™ Brand Square Edge**
- **Styrofoam™ Brand Tongue & Groove**

Applications

- Above-grade wood stud single-family walls.

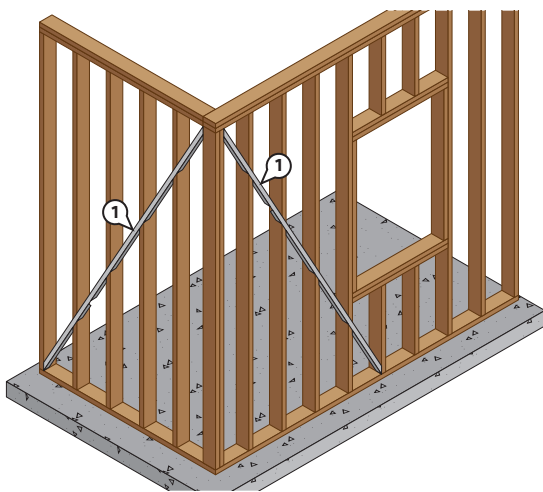
Personal Protective Equipment (PPE)

- Gloves
- Safety glasses

Site Preparation & Storage

- **Styrofoam™ Brand XPS Insulation Products** should be stored on a clean, flat surface in an area free from flammable or volatile materials.
- Avoid reflective surfaces adjacent to the insulation. Surfaces, like glass or polished metal, adjacent to the insulation can direct extra solar energy onto a horizontally placed insulation board, and excessively increase the surface temperature.
- Ensure clear walk area.

Installation Procedures



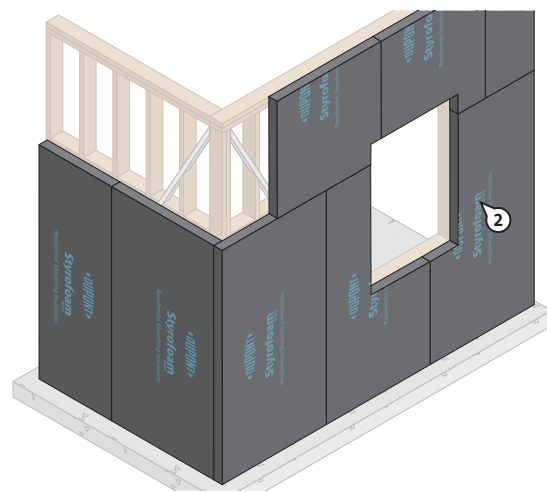
1. Install a code-acceptable wall bracing (e.g. diagonal metal strapping, let-in wood or wood structural sheathing), see [ESR - 4755](#) for more information. If wood sheathing is used, it should be covered by **Styrofoam™ Brand XPS Insulation Products** to provide full wall insulation. **NOTE: Styrofoam™ Brand XPS Insulation Products are not structural panels.**

Notices

- **Styrofoam™ Brand XPS Insulation Products** must not contact hot objects, such as chimneys, furnace and water heater flues, lighting fixtures, etc.
- Consult local code authority having jurisdiction (AHJ) regarding appropriate thermal and ignition barriers.

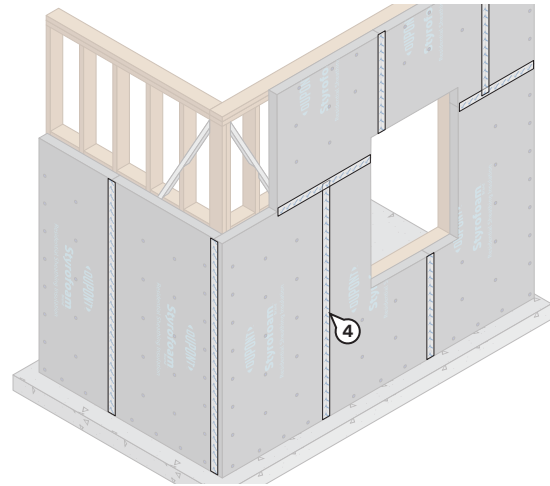
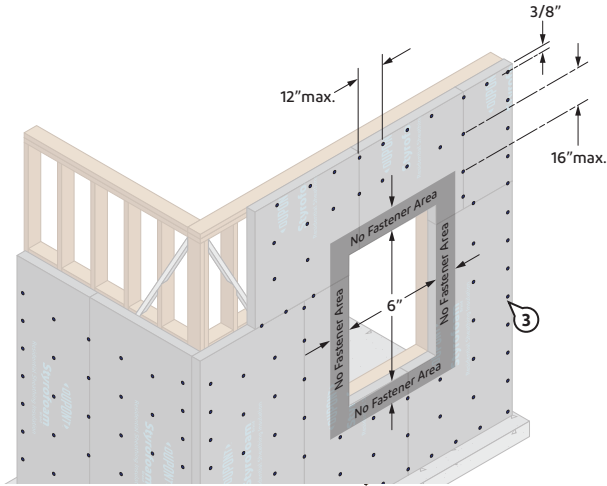
Helpful Hints

- Use a utility knife and straight edge to trim the insulation board to conform to irregular wall angles, projections or wall surfaces less than board width or height.
- Shakes or shingles can also be applied by installing furringstrips or a plywood nailer base over the insulation and attaching the shakes or shingles in accordance with the manufacturer's instructions.
- Secure 4' x 8' boards 12" o.c. around the perimeter and 16" o.c. in the field or as required by the code AHJ.
- Secure 2' x 8' boards using 3 fasteners per stud (12" o.c.) or as required by the code AHJ.
- In locations where cap fasteners will be covered with tape or flashing (e.g., along a seam between panels), ensure that the cap fastener is fully covered.
- **DuPont Self-Adhered Flashing Products** should be installed when air and surface temperatures are above 40°F.



2. Install **Styrofoam™ Brand XPS Insulation Products** with long edges in contact with one another and all panel edges bearing directly on framing members or blocking. **NOTE: Styrofoam™ Brand XPS Insulation Products** may be installed horizontally or vertically. 2' x 8' **Styrofoam™ Brand XPS Insulation Products** must be installed horizontally.

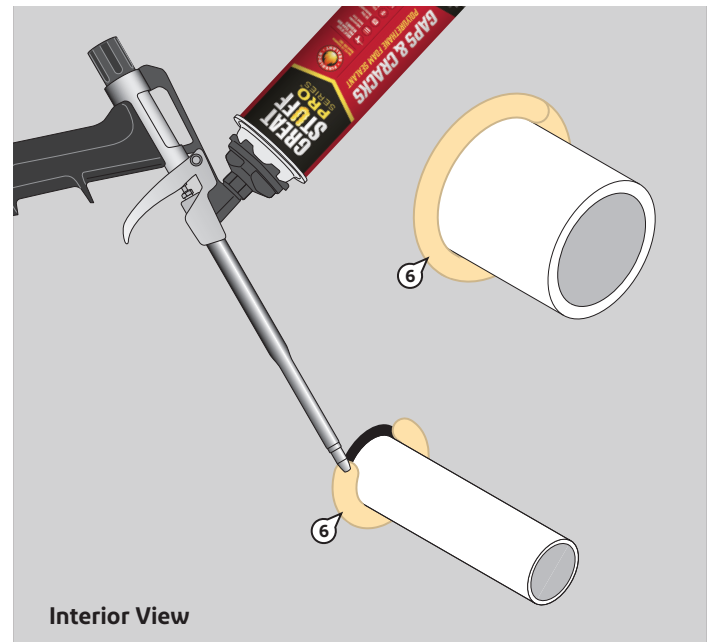
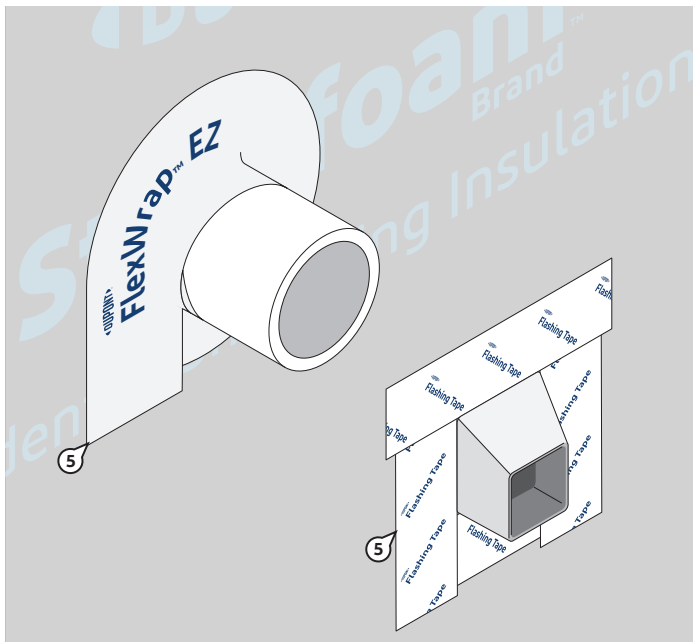
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3. Secure **Styrofoam™ Brand XPS Insulation Products** using 1" (25.4mm) head plastic cap nails or equivalent fasteners long enough to penetrate framing a minimum of 3/4". Fasteners should not be over-driven.

4. Tape all insulation joints (i.e., horizontal and vertical seams) using 3-3/4" (96 mm) wide **DuPont™ Styrofoam™ Brand Tape**.

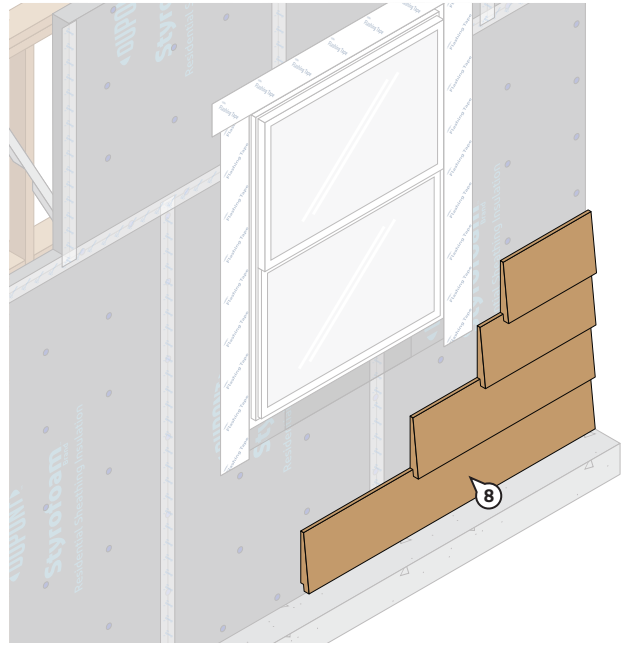
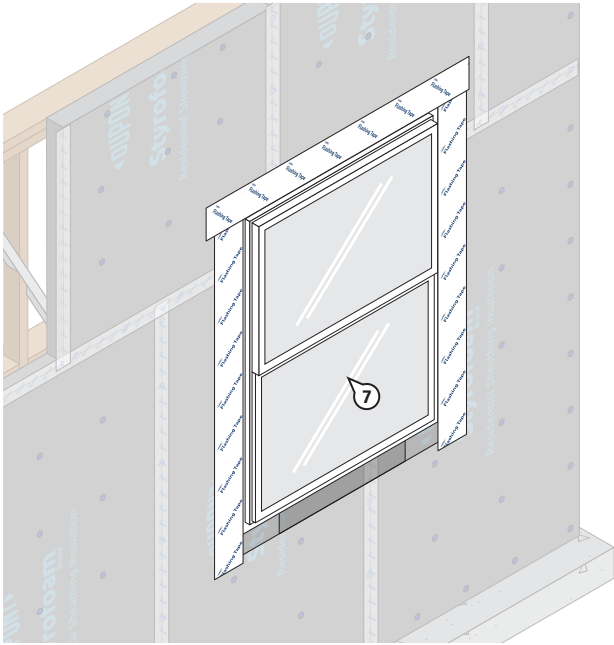
NOTE: See [Helpful Hints](#) section for more information on fastening insulation boards.



5. Tape all exterior penetrations (e.g., pipes and dryer vents) using **DuPont™ FlexWrap™, FlexWrap™ EZ**, or other applicable **DuPont Self-Adhered Flashing Products***.

6. **OPTIONAL:** FOR INTERIOR AIR SEALING - The penetration rough opening can be sealed from the interior side using **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant**, or recommended foam.

Installation of DuPont™ Styrofoam™ Brand XPS Insulation Products as a Weather-Resistive Barrier



7. Install window per manufacturer's installation instructions.
NOTE: Fasteners for window installation must be long enough to penetrate at least 1-1/4" (31.8 mm) into the framing.

8. Install exterior cladding per manufacturer's instructions, fastening through the insulation and into the studs. Refer to [2021 IRC Section R703.3](#) for appropriate cladding connection methods through Foam Plastic Insulating Sheathing (FPIS).

NOTE: When using **DuPont Self-Adhered Flashing Products** to flash an integral flanged window, refer to the [Integrating DuPont Building Envelope Solutions Products with DuPont Exterior Continuous Insulation](#) or other applicable DuPont Installation Guideline for detailed instructions.

***DuPont Self-Adhered Flashing Products** and **DuPont™ Weathermate™ Straight Flashing** should be installed when air and surface temperatures are above 40°F.



For more information about DuPont Performance Building Solutions, please call 1-833-338-7668 or visit us at building.dupont.com

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