Foam Plastic Insulating Sheathing (FPIS)

Installation Instructions

Revised 7/7/2020

Applied Building Technology Group (ABTG) is committed to using sound science and generally accepted engineering practice to develop research supporting the reliable design and installation of foam sheathing. ABTG's educational program work with respect to foam sheathing is supported by the Foam Sheathing Committee (FSC) of the American Chemistry Council.

ABTG is a professional engineering firm, an approved source as defined in Chapter 2 and independent as defined in Chapter 17 of the IBC.

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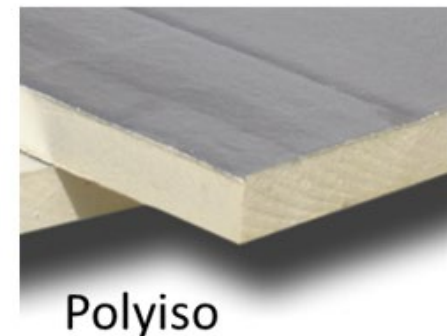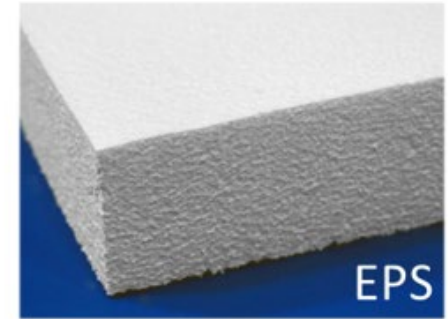
Foam sheathing research reports, code compliance documents, educational programs and best practices can be found at www.continuousinsulation.org.

Foam Plastic Applications
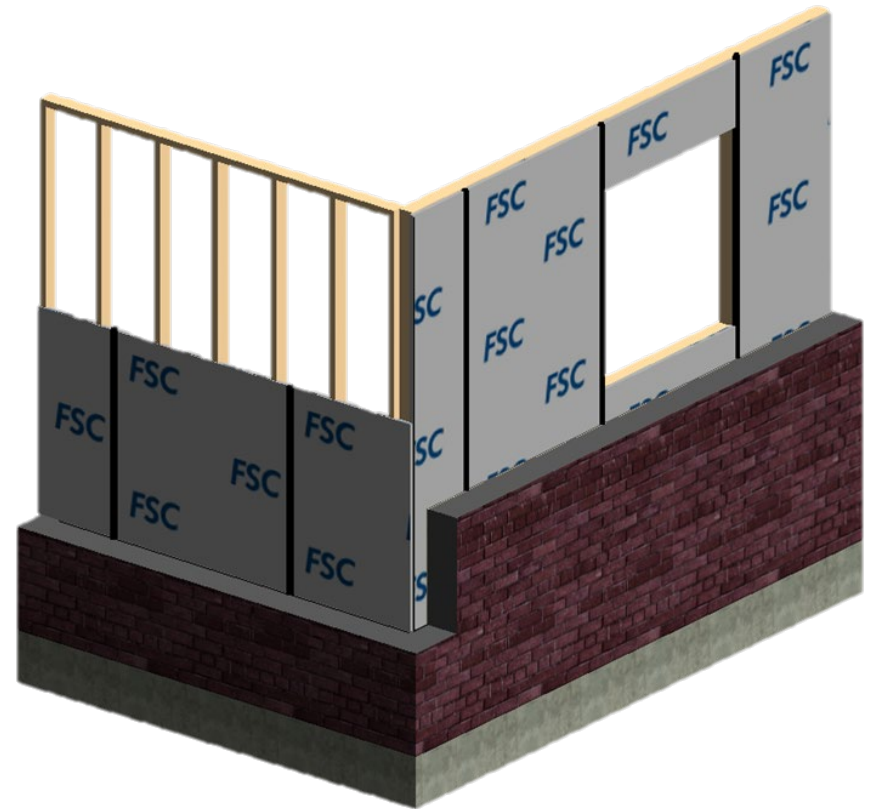for Better Building

Foam Plastic Insulating Sheathing (FPIS) Products

- Offered in three types:
  - Expanded Polystyrene (EPS) - *ASTM C578*
  - Extruded Polystyrene (XPS) - *ASTM C578*
  - Polyisocyanurate (Polyiso) - *ASTM C1289*

- Come in many thicknesses to accommodate almost any end use

EPS

XPS

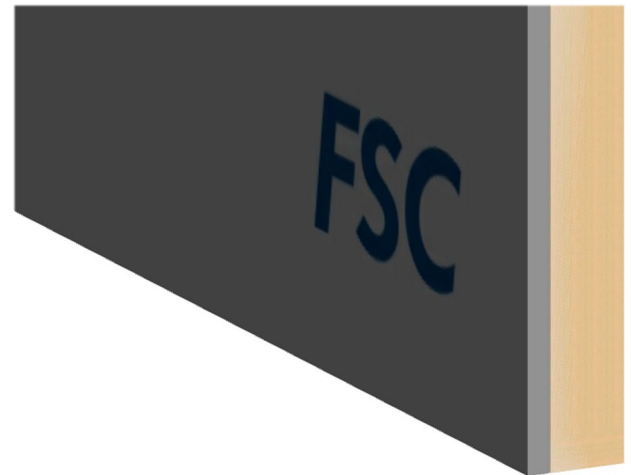Polyiso

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Foam Plastic Insulating Sheathing (FPIS) Products:

- Shall be installed in accordance with:
  - Manufacturer's installation instructions
  - DrJ Research Reports
  - The following general installation guidelines

Step 1: Place Insulation Boards

- Ensure wall is square and true

- Align boards with bottom edge of wall

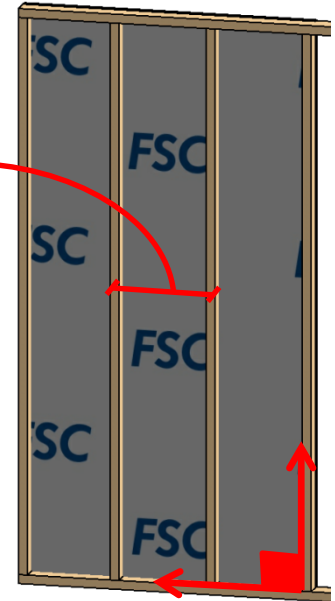

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Step 1: Place Insulation Boards

- Verify stud spacing, blocking, and bracing requirements with manufacturer

- Provide vertical framing or blocking for attachment of siding and trim at transitions

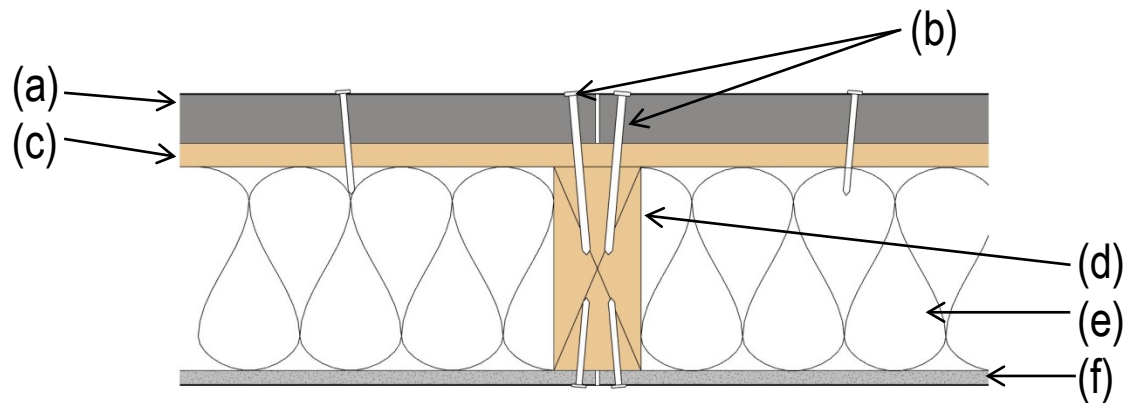- Vertical seams should not be visible from interior

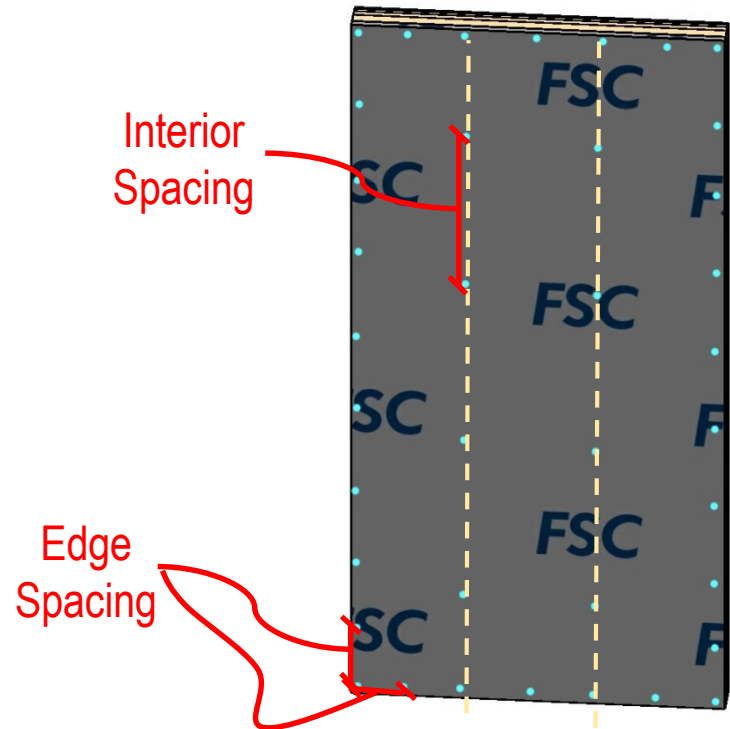16" o.c. (or per manuf.)

Step 2: Verify Fasteners

- Typical detail for FPIS wall assembly attachment
- Fasteners shall meet penetration requirements per manufacturer's instructions and code requirements

(a) FPIS
(b) Fasteners
(c) Structural Sheathing
     (as required)
(d) Framing
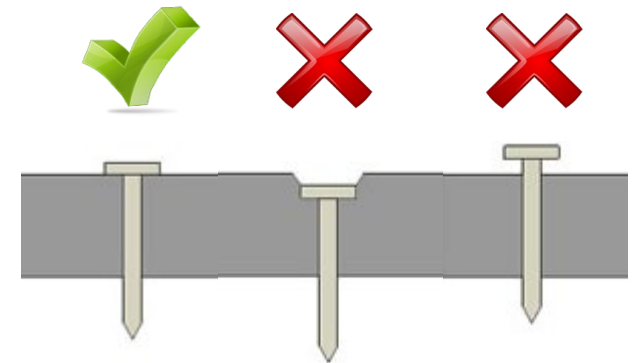(e) Cavity Insulation
(f) Interior wall finish

Step 3: Attach Insulation Boards

- Space fasteners per manufacturer's instructions
  - Around edges of panel
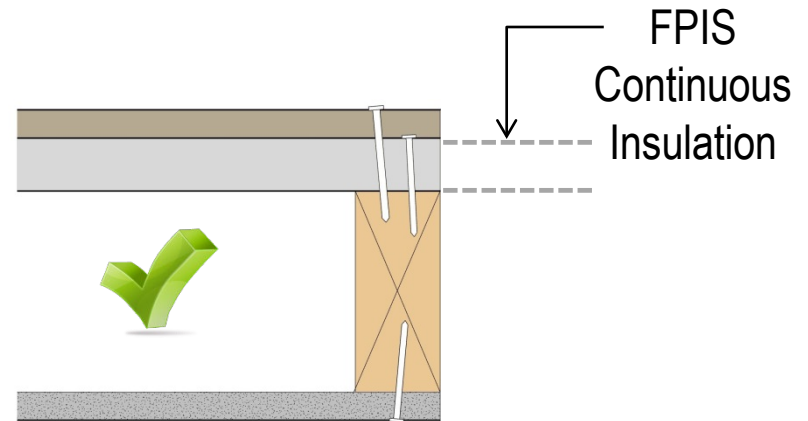 - Through panels and into interior members

Step 3: Attach Insulation Boards

- Drive nails flush and snug
- Do not overdrive nails
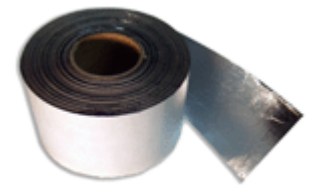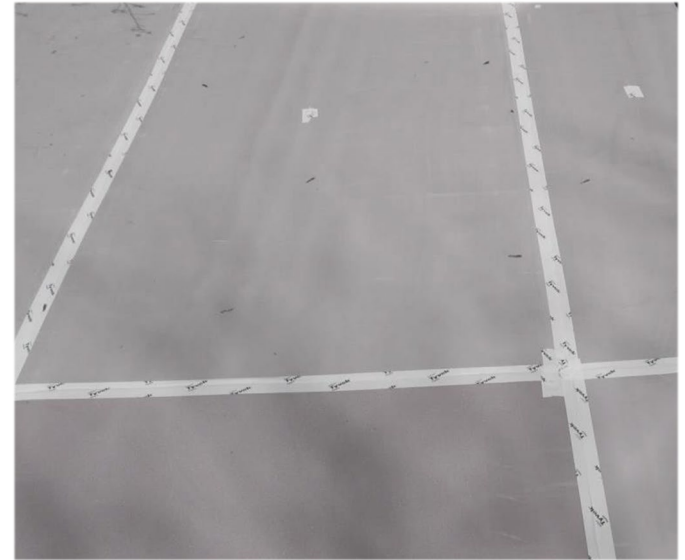- Do not underdrive nails

Step 4: Trim Boards at Openings

- Trim boards at all window and door openings

- Cover all framing with FPIS

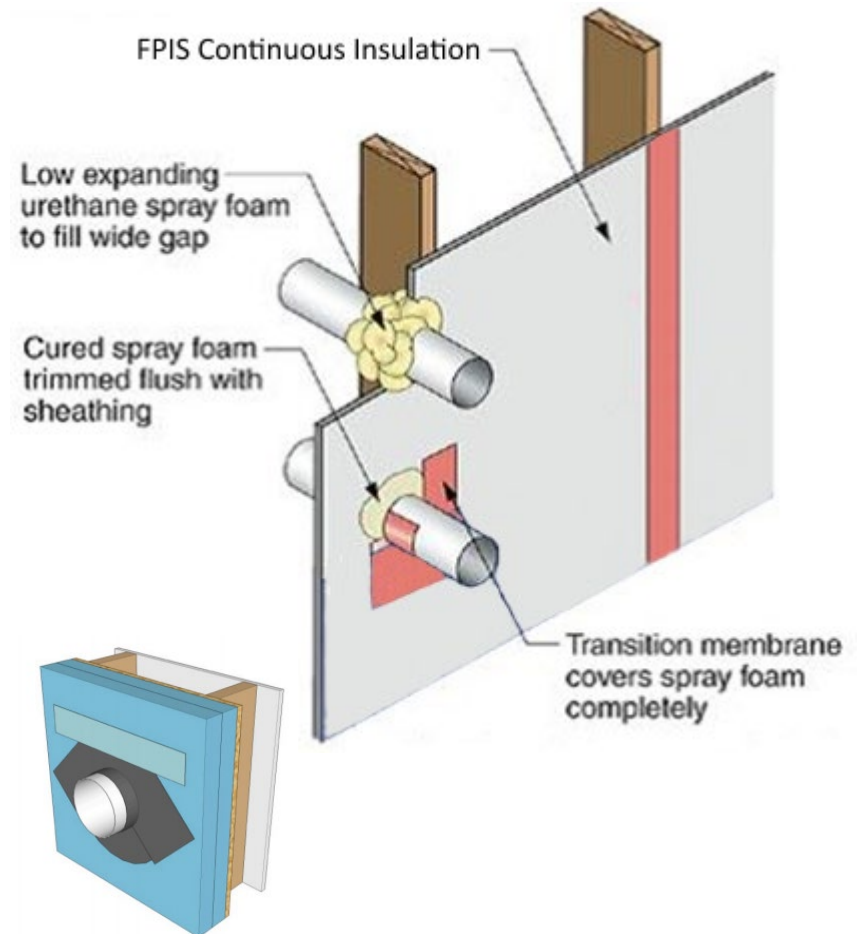- Fit joints tightly

FPIS Continuous Insulation

Step 5: WRB and Flashing

- Ensure that a code compliant water-resistive barrier (WRB) and required flashing is provided

- If using FPIS as a WRB:
  - Seal all joints and openings and penetrations per manufacturer's installation instructions

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Step 5: WRB and Flashing

- At pipe and other small penetrations, seal gaps with silicone or expanding spray foam sealant

- Seal joints and openings with joint tape per manufacturer's instructions

FPIS Continuous Insulation

Low expanding urethane spray foam to fill wide gap

Cured spray foam trimmed flush with sheathing

Transition membrane covers spray foam completely

Source:
DOE Building America

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Step 5: WRB and Flashing

- Repair damaged areas per manufacturer's instructions