Johns Manville
A Berkshire Hathaway Company

INSTALLATION GUIDE

AP™ FOIL-FACED PRODUCTS BELOW GRADE INTERIOR WALLS

These installation instructions can be used for both Johns Manville AP™ Foil and AP™ Foil25.

Interior Basement Wall

Johns Manville AP™ Foil-Faced insulation sheathing board is an excellent choice for insulating the interior side of below grade walls. Polyiso provides one of the highest R-values per inch of any rigid insulation (R-6 at 1 inch). AP™ Foil-Faced insulation is lightweight and easy to install. It can be installed on the interior of a basement wall by either direct attachment or using wood furring strips. AP™ Foil-Faced insulation must be covered with an approved thermal barrier and cannot be left exposed. Regardless, the AP Foil acts as a vapor barrier and no additional vapor barrier should be installed in a basement application.

Before You Begin:

Always follow local building codes. AP™ Foil-Faced sheathing must be separated from the interior of a building by a minimum of ½-inch gypsum board or equivalent 15-minute thermal barrier as required by code. Repair any water leaks or structural cracks in the wall. Gather all materials.

Special training and/ or certification is not required. This product is designed for an easy install for both DIYs and professional contractors.

Warning: Polyisocyanurate foam is an organic material which will burn when exposed to an ignition source of sufficient heat and intensity and may contribute to flames spreading. Boards must not be in direct contact with hot objects requiring a certain amount of clearance. Refer to equipment/ fixture rating for guidance.

Occupancy time after installation: There are no specific requirements related to re-entry or re-occupancy time after installation of the insulation.

Materials Checklist

- Safety glasses and gloves
- Measuring tape and pencil
- Utility knife or handsaw
- Straight edge
- Construction-grade polyurethane adhesive such as Liquid Nails® or Loctite®
- Flashing tape such as 3M 8067, Grace Vycor Pro, or Lamatek
- Mechanical fasteners such as masonry nails with 1-inch metal washers
- Single component, moisture-cure silicone sealant

Measuring and Cutting

1. Measure the board by dragging a measuring tape hook across the surface of the board; create a crease while holding the tape at the desired length.
2. Using a straight edge as a guide, deeply score the crease. There is no need to cut through.
3. Snap the board along the score line over the edge of a table or workbench.

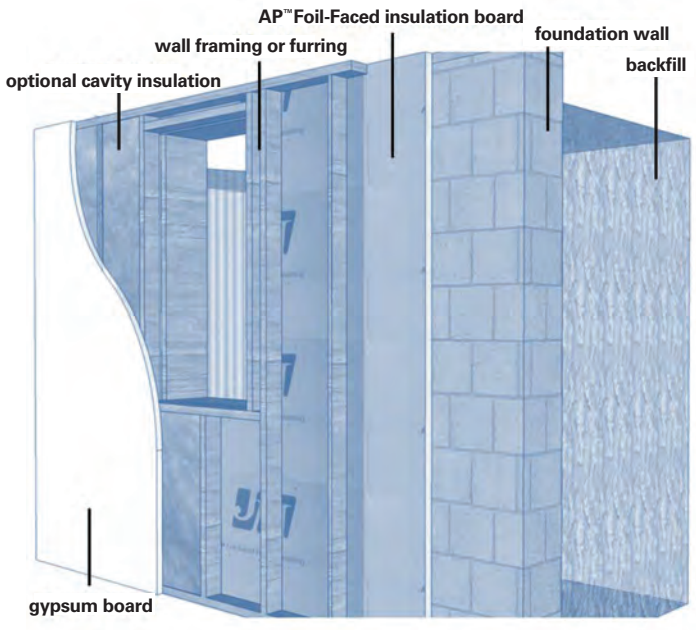
1. 
2. 
3. 

Installation

OPTION 1: Direct Attachment

1. Use maximum board lengths to minimize the number of joints.
2. Install AP™ Foil-Faced insulation over the interior side of foundation walls using construction-grade adhesive or masonry nails or screws with 1-inch washers or caps. Place the reflective side facing the interior, and the nonreflective side facing the foundation wall.
3. Fasteners should penetrate 1 inch minimum into the concrete. Space fasteners approximately 24 inches on center around the perimeter and in the field of each board. Drive fasteners so that the washer is flush with the board surface, but do not countersink.
4. Butt board edges together tightly and carefully fit around penetrations. Patch holes less than 1 inch across with flashing tape or sealant. Patch holes greater than 1 inch across with matching board material and then seal with flashing tape.
5. Cover AP™ Foil-Faced insulation with a minimum ½-inch gypsum board or equivalent 15-minute thermal barrier as required by local building code.

Figure 1. Below-Grade Interior Direct Attachment



Installation (continued)

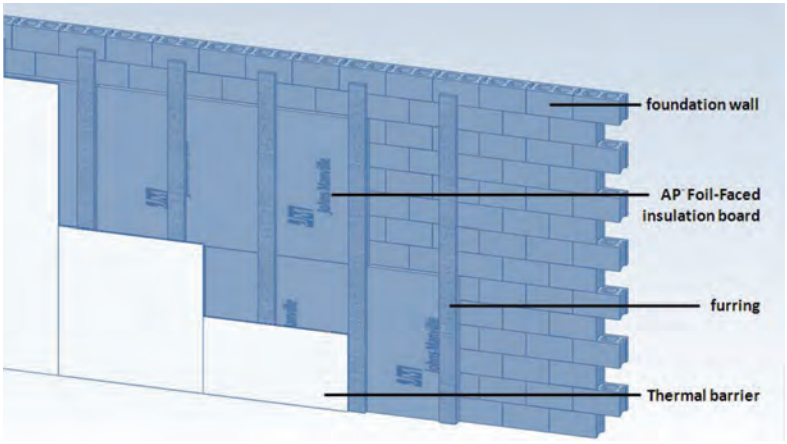
OPTION 1: Direct Attachment - Continued

6. Build a conventional stud wall that firmly presses foam insulation against basement wall.
7. For additional R-value, install insulation between the wall studs. Options for insulating between studs include Johns Manville Formaldehyde-free™ Unfaced fiber glass batts, JM Climate Pro® blown-in fiber glass in the Blow-In-Blanket® system, JM Spider® Plus Blow-in Custom Fiber Glass Insulation System or other approved cavity insulation product.
8. Install ½-inch gypsum board or equivalent 15-minute thermal barrier over wall framing as required by local building code. Tape and finish according to manufacturer's instructions.

OPTION 2: Wood Furring

1. Install AP™ Foil-Faced insulation over the interior side of foundation walls, butting board edges together tightly. Insulation boards can be held in place with 1- to 2-inch spots of construction-grade adhesive, spaced 16–24 inches in each direction. Place the reflective side facing the interior, and the nonreflective side facing the foundation wall.
2. Apply suitable wood furring strips a maximum of 24 inches on center vertically over the insulation. Use appropriate mechanical fasteners, such as masonry nails or screws, spaced 24 inches on center. Fasteners should be long enough to penetrate masonry approximately one inch, and furring strips should cover vertical seams between insulation boards.
3. Install ½-inch gypsum board or equivalent 15-minute thermal barrier over furring strips. Tape and finish according to manufacturer's instructions. AP™ Foil-Faced insulation must be covered with an approved thermal barrier and cannot be left exposed.

Figure 2. Below Grade Interior Wood Furring Attachment



Personal Protective Equipment

Personal Protective Equipment: Eyes/Face
Safety glasses with side shields are recommended to keep dust out of the eyes.
Personal Protective Equipment: Skin
Leather or cotton gloves should be worn to prevent skin contact and irritation.
Personal Protective Equipment: Respiratory
A NIOSH-certified respirator should be used if ventilation is unavailable, or is inadequate for keeping dust levels below the applicable exposure limits.
Ventilation
In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust. General dilution ventilation should be provided as necessary to keep airborne dust below the applicable exposure limits and guidelines. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.
Personal Protective Equipment: General
Loose-fitting, long-sleeved clothing should be worn to protect skin from irritation. Work clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of dust being transferred to other clothing.

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