Johns Manville
A Berkshire Hathaway Company

INSTALLATION GUIDE

AP™ FOIL-FACED PRODUCTS BELOW GRADE APPLICATIONS

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

Exterior Basement Wall

Johns Manville AP™ Foil-Faced insulation sheathing board is an excellent choice for insulating exterior 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. The best time to insulate the exterior of basement walls is before backfilling. If the backfill is already in place, the above-grade portion of the basement wall may be insulated; however, interior insulation may be a better option.

Before You Begin:

Always follow local building codes. Some codes may not allow foam insulation on the exterior of foundations due to termites. Repair any water leaks or structural cracks in the wall. Gather all materials.

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®
- Mechanical fasteners such as masonry nails with 1-inch metal washers or caps
- 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 for Exterior Walls

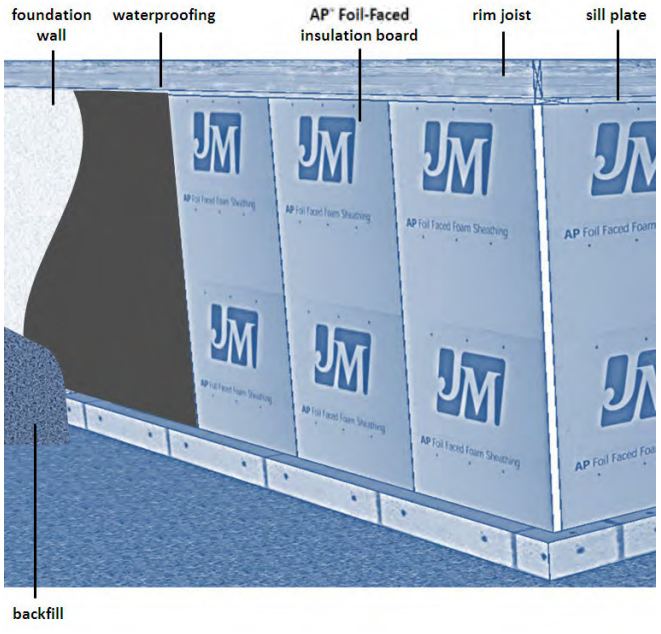
OPTION 1: Vented Crawl Space

1. Install AP™ Foil-Faced insulation boards over damproofing or waterproofing.
2. Use maximum board lengths to minimize number of joints. Rest the bottom edge of foam insulation on top of footer and extend up to the sill plate.

   Insulation may be held in place temporarily with 1- to 2-inch size spots of high-quality construction adhesive, spaced approximately 16 inches each direction.
3. Fasten foam insulation boards to the foundation wall using power-driven masonry nails with 1-inch minimum metal washers or caps, or other suitable masonry fastener. Fasteners should penetrate 1-inch minimum into the concrete. Space fasteners approximately 24 inches on center.
4. Butt board edges together tightly and carefully fit around penetrations.
5. To enhance water drainage and air sealing performance, seal all board seams with approved flashing tape such as 3M 8067, Grace Vycor Pro, Lamatek, or equivalent.
6. Per IECC section 303.2.1, protect foam insulation with a rigid, opaque and weather-resistant protective covering. The protective covering shall cover the exposed exterior insulation and extend not less than 6 inches (153 mm) below grade.

IMPORTANT NOTE: Some applications may require a 2- to 3-inch inspection strip along the top of the foundation wall for termite mitigation. Always adhere to local building codes or pest control requirements.

Figure 1. Below-Grade Exterior Wall



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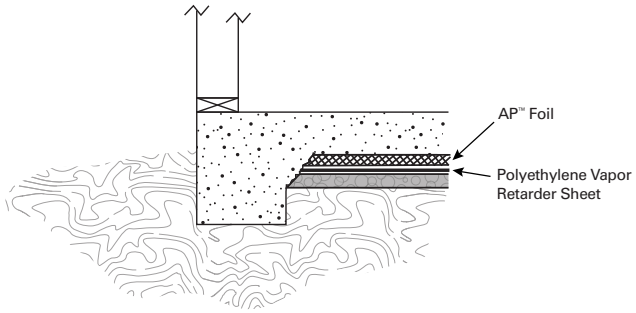
Installation for Below Slab

1. Place polyethylene vapor barrier over prepared base of crushed stone, sand, or aggregate.
2. Overlap polyethylene sheets and tape the seams.
3. Install AP™ Foil-Faced – Sheathing on top of the vapor barrier, butting edges together and not allowing for gaps larger than ¼" between boards.

Figure 1. Below Slab Exterior Wall



Notes:
1. Place AP™ Foil-Faced Sheathing on top of the leveled base.
2. Note local code requirements for placement specifications.

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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