



Installation Guidelines for DuPont™ Thermax™ Brand Insulation Used in Exposed Interior Masonry Wall Applications

SYSTEM OVERVIEW

Description

DuPont™ Thermax™ Brand Polyisocyanurate Insulation offer quick and easy options to insulate interior masonry walls without being covered by gypsum wallboard or paneling. Thermax™ Brand Insulation products can be left exposed to the interior without a thermal barrier when installed in accordance with governing building codes*. These insulation products are ideal whether the desired result is a semi-finished or finished appearance.

Thermax™ Brand Insulation products are nonstructural, rigid boards consisting of a glass-fiber-reinforced polyisocyanurate foam core with solid aluminum facers on both sides. The exposed surface of Thermax™ Sheathing and Thermax™ Basic NH is a reflective foil, perfect for use in areas such as a laundry room or storage space. Thermax™ White Finish NH and Thermax™ Light Duty NH feature embossed white acrylic-coated aluminum facers on their exposed surfaces, for a clean, finished wall that is durable and washable.

Table 1. Thermax™ Brand Insulation Recommendations

Product	Surface Facers
Thermax™ Light Duty NH	1.25 mil white acrylic-coated aluminum/ 1.25 mil embossed aluminum
Thermax™ White Finish NH	1.25 mil white acrylic-coated embossed aluminum/ 1 mil smooth aluminum foil
Thermax™ Sheathing	1 mil smooth aluminum foil on both sides
Thermax™ Basic NH	

Special Considerations

- Store insulation inside or protect with a tarp to keep dry until use.
- Thermax™ Brand Insulation can be installed vertically or horizontally.
- Thermax™ Brand Insulation can also be covered with gypsum wallboard. Refer to: Installation Guidelines for DuPont™ Thermax™ Brand Insulation Used in Finished Interior Masonry Wall Applications for more information.
- Thermax™ Brand Insulation and other combustible materials must be shielded and/or given proper clearance in a manner acceptable to building codes in areas immediately adjacent to or above combustion equipment (e.g., furnaces or chimneys) or other surfaces that could reach high temperatures.
- Thermax™ Brand Insulation may be left exposed in storage and utility areas such as crawl spaces, attics and basements. Install a code-approved finish where necessary to protect the insulation from damage or standing water.
- Follow local building code criteria for fire resistance in attached garages. Where insulated walls and/or ceilings separate the garage from a living space, frame walls should include a minimum of 1/2" gypsum applied to both sides; ceilings should be covered with 1/2" type X gypsum board.

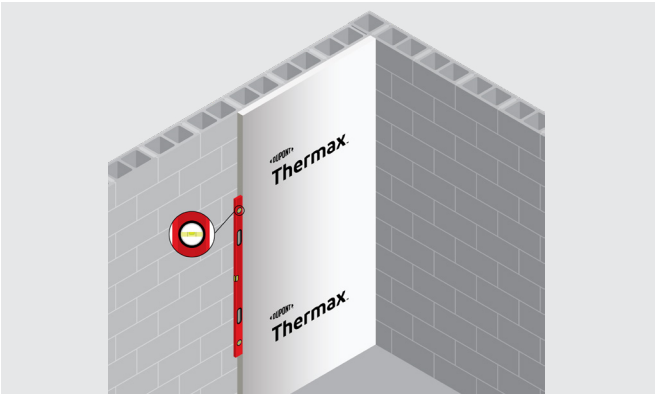


Figure 1

* In Canada, DuPont™ Thermax™ Brand Insulation exposed to the interior must be covered with a thermal barrier.
**See International Code Council National Evaluation Services Report NER-681.

- When installing **Thermax™ Brand Insulation**, boards must fit tightly together vertically and at right angles (90 degrees). (See Figure 1.) End-joint gaps greater than 1/8" should be filled with spray foam such as **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant*** or equivalent to keep a continuous air infiltration barrier and to help ensure maximum thermal efficiency across the board joints.
- To increase thermal efficiency and cut down on air infiltration, fill areas behind plumbing (where **Thermax™ Brand Insulation** cannot fit) or around window and door frames with **Great Stuff Pro™ Polyurethane Foam Sealant** or equivalent.
- If fire blocking material or fire stop material is used (for example, between floors as required by local code), then sealant, caulking and/or spray foam must meet those criteria also. Check with sealant, caulking or spray foam supplier or specification for that particular area of installation only.

INSTALLATION

Materials Checklist

To install **Thermax™ Brand Insulation**, you will need:

- Utility knife or small handsaw (use caution and proper PPE)
- Straight edge
- Measuring tape
- Pencil
- DuPont™ **Thermax™ White Foil Tape*** or **Thermax™ Aluminum Foil Tape (for Method A)**
- Mechanical fasteners *(for Method A, optional)*
- Polyisocyanurate-compatible construction grade adhesive, such as **Great Stuff Pro™ Construction Adhesive (for Method B)**
- Squeegee, stiff bristle brush, or paint roller *(for Method A)*
- PVC interlock joint closure system *(for Method B)*
- Hammer, pneumatic fastener or screwdriver
- Polyisocyanurate-compatible polyurethane spray sealant, such as **Great Stuff Pro™ Gaps & Cracks Polyurethane Foam Sealant**
- Safety glasses

*Designed for insulation products with white facers

Cutting

There are two ways to cut **Thermax™ Brand Insulation**. One way is to use a straight edge and a utility knife, making sure to cut all the way through the facing. Make sure the surface backing is safe to cut on. Alternatively, the insulation may be cut with a small handsaw. Safety precautions should be taken with either method. See Figures 2a and 2b.

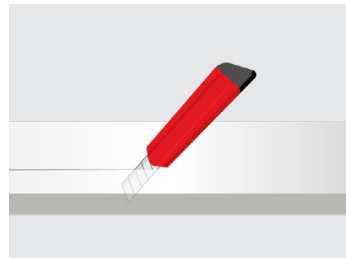


Figure 1a

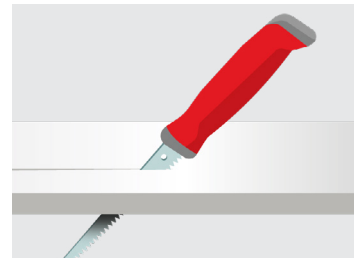


Figure 1b

Installation

Before installing **Thermax™ Brand Insulation** on the interior wall, be sure there are no leaks or structural cracks in the wall as the insulation products are not designed to stop water leakage.

Thermax™ Brand Insulation products may be attached directly to the wall with construction-grade adhesive or with the PVC interlock joint closure system. Both installation methods offer a quick and easy alternative to using studs, batt insulation and drywall.

Method A: Using Construction Adhesive

1. Provide proper ventilation and wear gloves and eye protection.
2. Ensure surface is clean and dry before applying heavy beads (min. bead size - 3/8") of **Great Stuff Pro™ Construction Adhesive**, or other chemically-compatible construction grade adhesive, to the wall. Follow manufacturer's instructions regarding suitable application temperatures. (Figure 2)



Figure 2

INSTALLATION (continued)

3. Adhere **Thermax™ Brand Insulation** directly to the wall. Follow adhesive manufacturer's recommendations for pressure needed to form bond (if required) and proper cure times.

OPTIONAL: Attach mechanical fasteners to the top and bottom of the board to hold it in place until the adhesive has set. Press insulation board against the wall and butt board edges tightly together (Figure 3). Apply pressure to board until the adhesive is set. (Optional: Attach mechanical fasteners to the top and bottom of the board to hold it in place until the adhesive has set).

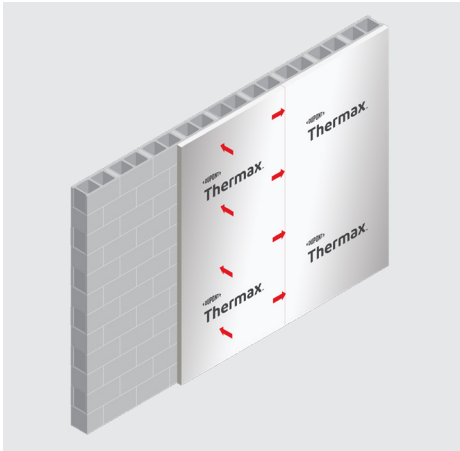


Figure 3

4. For additional insulation value and protection against air infiltration, apply a small bead of **Great Stuff™ Pro Gaps & Cracks** along board seams. Take care that foam does not get on insulation facer during application. Allow foam to fully cure, then trim excess with a serrated knife.
5. Center **Thermax™ Aluminum Foil Tape** or **Thermax™ White Foil Tape** over the dry, clean seams (Figure 4). Use a squeegee, or stiff bristle brush or soft paint roller to press the tape firmly onto the seam. Cut with knife or scissors. Do not tear tape.

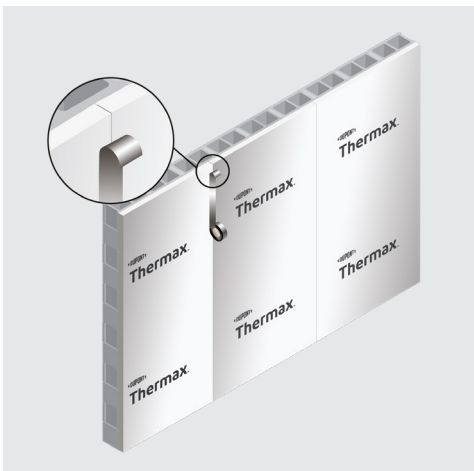


Figure 4

Method B: Using PVC Interlock Joint Closure System

For additional moisture control and a more finished appearance when insulating with **Thermax™ White Finish NH** and **Thermax™ Light Duty**, use the PVC interlock joint closure system. The PVC interlock joint closure system is composed of a 2" wide PVC base strip that is attached to the wall at vertical joint locations and a top "T" section that snaps into the base, holding the insulation boards to the wall. Select the correct top "T" section size for the insulation thickness. Both the PVC base strip and top "T" sections are sold in 10' lengths. Refer to *DuPont™ Thermax™ Brand Insulation Joint Closure Options for Interior Applications* for more information.

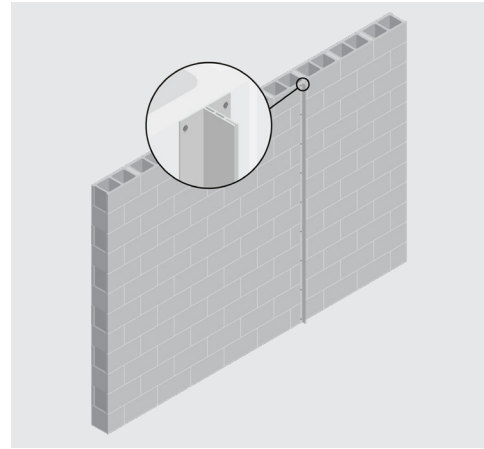


Figure 5

1. Measure and mark vertical lines for the placement of the PVC base strips. Space the PVC base strips for the correct width of the insulation board (Figure 5). Allow 1/8" between the insulation boards to accommodate the width of the PVC base strip. (Figure 6).
2. Fasten PVC base strip to concrete or masonry wall every 12" (Figure 6) with a pneumatic nailer or equivalent

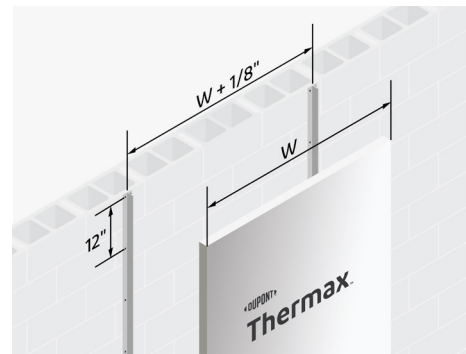


Figure 6

3. Provide proper ventilation and wear gloves and eye protection.

INSTALLATION (continued)

4. Ensure surface is clean and dry before applying **Great Stuff Pro™ Construction Adhesive**, or other chemically-compatible construction grade adhesive, to the wall every 16" between PVC base strips (Figure 7). Follow manufacturer's instructions regarding suitable application temperatures.

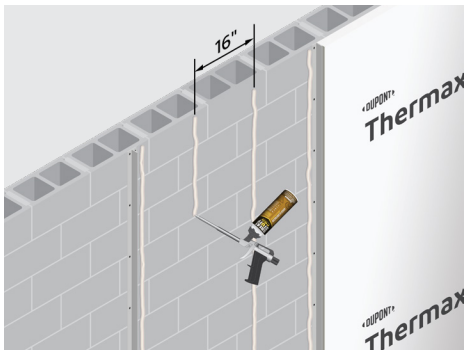


Figure 7

5. Press insulation boards firmly into position between the PVC base strips (Figure 8).

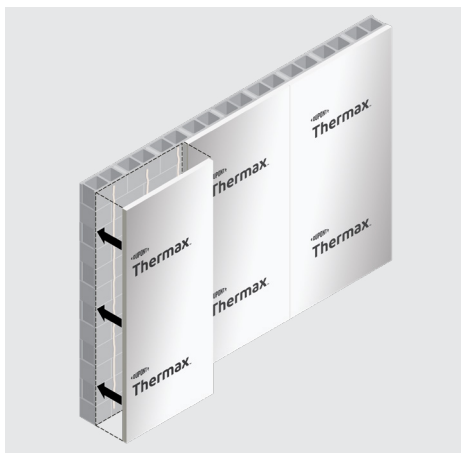


Figure 8

6. Apply a continuous bead of a chemically-compatible construction-grade caulk/sealant along the vertical edges of the insulation boards, then position and press a PVC top "T" section in the PVC base strip until it snaps into place (Figure 9).

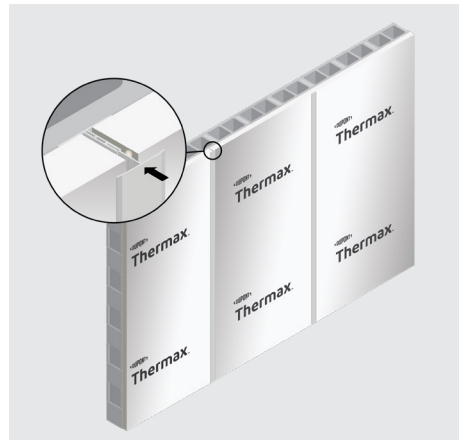


Figure 9

7. Figure 10 shows three different options for finishing at corners: butting two panels against one another, using the PVC Clip Strip or using the J-channel edge closure. The method chosen depends on the desired finished look.

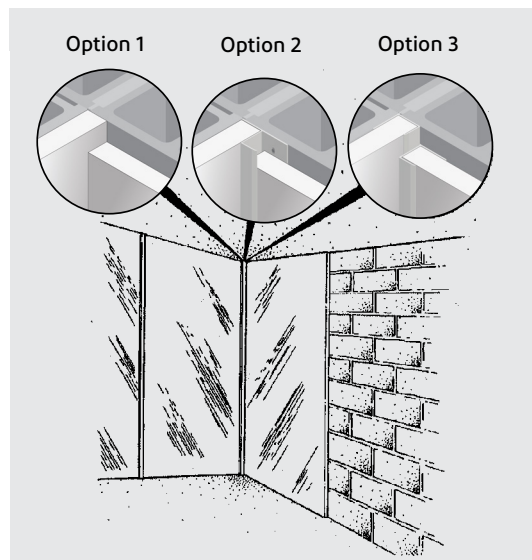


Figure 10

INSTALLATION (continued)

Additional Protection Against Air and Moisture

Use Great Stuff™ Pro Gaps & Cracks to seal gaps, cracks and joints as well as to insulate the area between floor joists along the sill plate (Figures 11 and 12).

Note: Great Stuff Pro™ foam sealant products cannot be removed from Thermax™ Brand Insulation. Use tape or protective film to protect board surface from overspray.



Figure 11



Figure 12

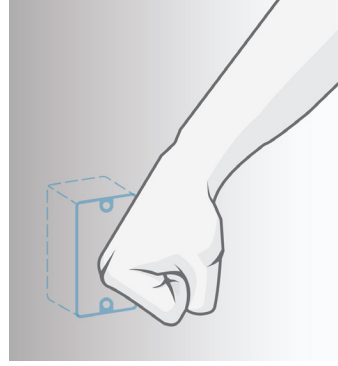


Figure 13

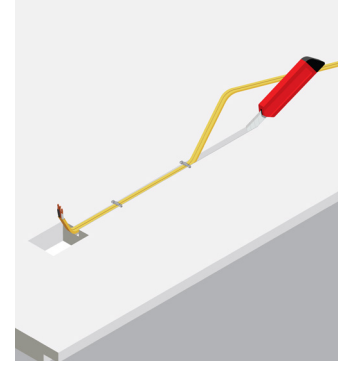


Figure 14

Recommendations for Painting

If desired, Thermax™ Brand Insulation may be painted after installation and taping of joints. Visit our building.dupont.com for more specific recommendations on painting the insulation boards.



**For more information visit
building.dupont.com
or call 1-833-338-7668**

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Thermax™ Polyisocyanurate Sheathing is combustible and shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable barrier.

Great Stuff Pro™ Insulating Foam Sealant contains isocyanate and a flammable blowing agent. Read the label and Material Safety Data Sheet carefully before use. Eliminate all sources of ignition before use. Wear gloves, and safety glasses or goggles. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure.

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

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including DuPont can give assurance that mold will not develop in any specific system.

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