

# Installation Procedures for Exposed Basement Applications

## Using Thermax™ Brand Insulations

### SYSTEM OVERVIEW

#### General Information

**Thermax™ Sheathing** and **Thermax™ White Finish (WF) Insulation\*** offer two quick and easy options to insulate basement walls. Lightweight and easy to install, both products are ideally suited for exposed basement applications, whether the desired result is a semi-finished or finished appearance.

**Thermax™ Sheathing** and **Thermax™ White Finish** 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** is reflective

foil, perfect for use in areas such as a laundry room or storage space. **Thermax™ White Finish** features an embossed white acrylic-coated aluminum facer on its exposed surface, for a clean, finished wall that is durable and washable.

Thermax™ Brand products can be left exposed to the interior without a thermal barrier in most applications.\*\* Thermax™ insulations are Factory Mutual approved as "Wall-Ceiling Construction, FM Approvals Standard FM 4880, Metal Faced – Class 1 Fire Rated to a max. 30 ft. High."

#### Materials Checklist

To install **Thermax™ Sheathing** or **Thermax™ White Finish Insulation**, you will need:

- Utility knife or small handsaw
- Straight edge
- Safety glasses/goggles and gloves
- Ventilation or respiratory protection for application of polyurethane foam sealant
- Measuring tape
- Construction-grade adhesive such as **Enerbond™ Professional Foam Adhesive**

- Pencil
- **Thermax™ Aluminum Foil** or white foil tape (for Option 1)
- Mechanical fasteners (optional for Option 1)
- Squeegee or soft paint roller (for Option 1)
- PVC interlock joint closure system (for Option 2)
- Polyurethane-compatible construction-grade caulk/sealant (for Option 2)
- Polyisocyanurate-compatible insulating foam sealant such as **GREAT STUFF™ Pro Gaps & Cracks Polyurethane Foam Sealant**

### INSTALLATION PROCEDURES

#### Cutting

Thermax™ Brand insulation products may be cut with a straight edge and utility knife or with a small handsaw. See Figures 1a and 1b.

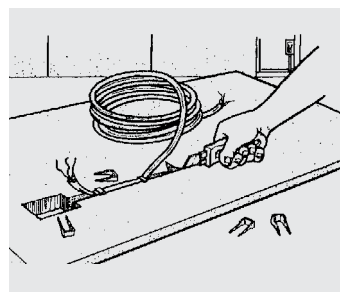


Figure 1a

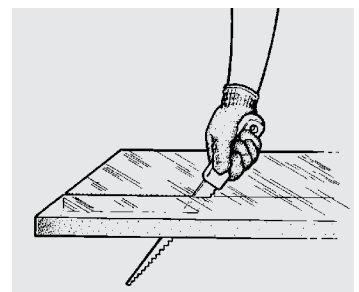


Figure 1b

\* Thermax™ Sheathing and Thermax™ White Finish Insulation are former products of The Dow Chemical Company.

\*\*See International Code Council National Evaluation Services Report NER-681.

## Installation

Before installing Thermax™ insulation on the interior basement wall, be sure there are no leaks or structural cracks in the wall. Thermax™ Brand products insulate the basement wall; they do not stop water leakage. Thermax™ insulations may be attached directly to the basement 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.

### Option 1: Adhere Directly to Wall

1. Provide proper ventilation and wear gloves and eye protection.
2. Apply heavy beads (min. bead size 3/8") of **Enerbond™ Professional Foam Adhesive** or appropriate construction-grade adhesive to the wall (Figure 2). **Note:** Follow adhesive manufacturer recommendations for application pressure and cure times for proper adhesion to masonry walls.

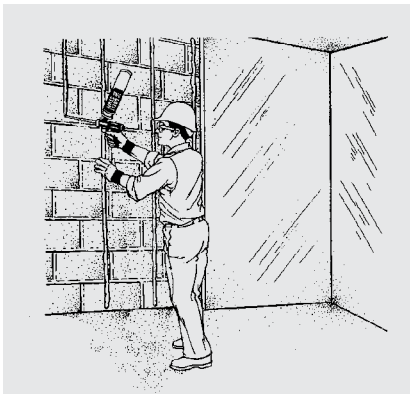


Figure 2

3. 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).

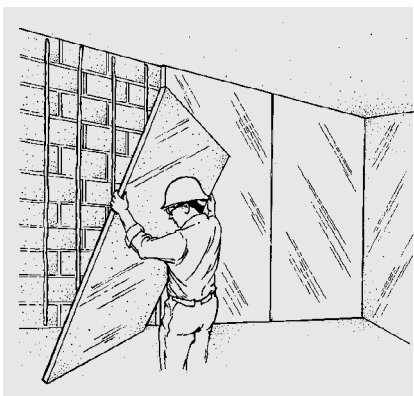


Figure 3

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. Cover seams between insulation boards with aluminum or white foil tape (Figure 4). Before applying tape, wipe the application area with a damp cloth to remove foam dust. Allow surface to air dry. Use a squeegee or soft paint roller to press the tape firmly to the joint. Cut tape with a knife or scissors. Do not tear tape.

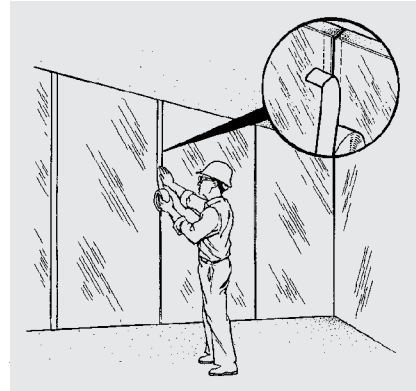


Figure 4

### Option 2: PC Interlock Joint Closure

For additional moisture control and a more finished appearance when insulating with **Thermax™ White Finish Insulation**, 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. The top "T" sections are available in sizes to accommodate board thicknesses of 1", 1.5" and 2". Select the correct top "T" section size for your application. Both the PVC base strip and top "T" sections are sold in 10' lengths.

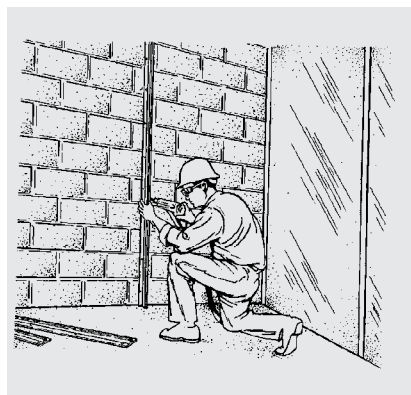


Figure 5

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.
2. Fasten PVC base strip to concrete or masonry wall every 12" with a pneumatic nailer or equivalent (Figure 6).

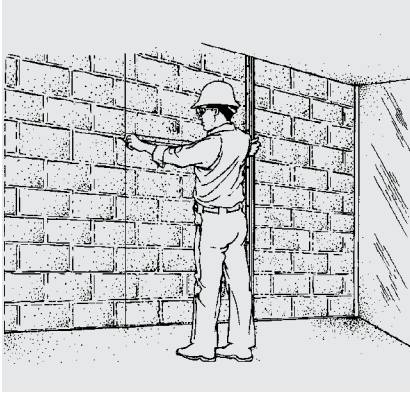


Figure 6

3. Provide proper ventilation and wear gloves and eye protection.
4. Apply beads of **Enerbond™** or appropriate construction-grade adhesive to the wall every 16" between PVC base strips (Figure 7).



Figure 7

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

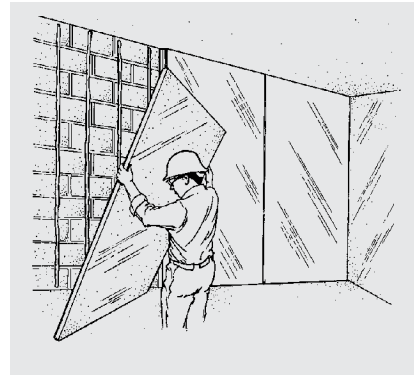


Figure 8

6. Apply a continuous bead of 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).

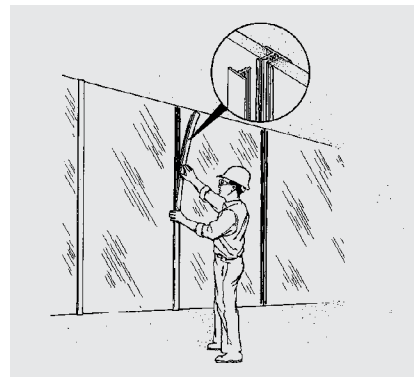


Figure 9

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.

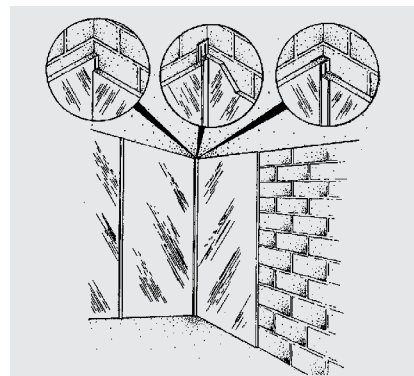


Figure 10

### 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™ White Finish Insulation. Use tape or protective film to protect board surface from overspray.

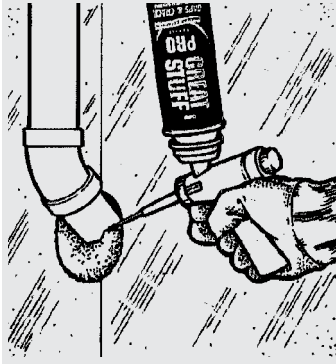


Figure 11

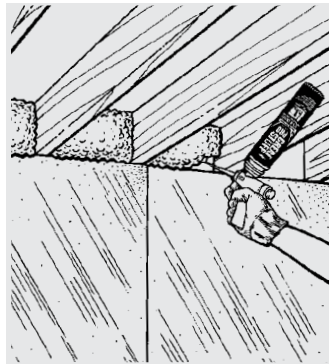


Figure 12

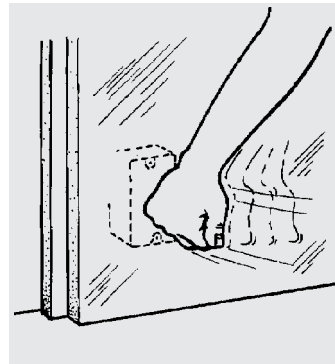


Figure 13

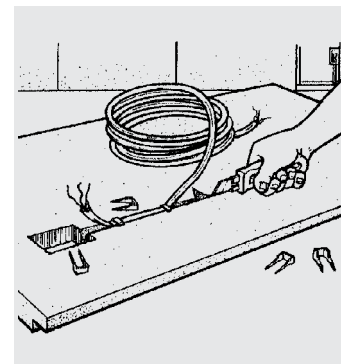


Figure 14

### Recommendations for Painting

If desired, Thermax™ Sheathing and Thermax™ White Finish Insulation may be painted after installation and taping of joints. Visit our website for more specific recommendations to paint Thermax™ insulations.



**For more information visit us at**  
**[thermaxwallsystem.com](http://thermaxwallsystem.com)**  
**or call 1-866-583-2583**

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THERMAX products should be used only in strict accordance with product application instructions. THERMAX products, when used in a building containing combustible materials, may contribute to the spread of fire. For more information, consult MSDS and/or call DuPont at 1-866-583-2583.

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

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

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