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Short Form Guide Specification

**STYROFOAM™ CAVITYMATE™  
Ultra Air Barrier Wall System**

November 2011

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The Dow Chemical Company  
Short Form Guide Specification-  
STYROFOAM™ Brand CAVITYMATE™ Ultra Air Barrier Wall System

DISCLAIMER: The manufacturer has reviewed the product information contained in this short form specification. The information is organized and presented to assist the specification writer working on a construction project to select the appropriate products and to save time in writing the project specification Section. The specification writer is responsible for product selection as well as the use and application of this information, and should contact

## PART 1 – GENERAL

### 1.1 SUMMARY

- A. Section Includes
  - 1. Foam-plastic board insulation
- B. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to this Section.

### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. LEED Submittals:
  - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
- C. Manufacturer's product literature, including specified physical properties.
- D. Installation instructions.
- E. Certification that product complies with specification requirements and is suitable for the use indicated.

### 1.3 QUALITY ASSURANCE

- A. Cavity Wall Insulation shall not be produced with, or contain, any of the United States EPA regulated CFC Compounds listed in the Montreal Protocol of the United Nations Environmental Program.

### 1.4 INFORMATIONAL SUBMITTALS

- A. Product test reports.
- B. Research/evaluation reports.

## 1.5 PRODUCT HANDLING

- A. Protect insulation from physical damage.
- B. Comply with manufacturer's recommendations for handling, storage and protection.
- C. Handle boards carefully so corners are not broken off or boards otherwise damaged.

## 1.6 WARRANTY

- A. Provide written warranty that the actual thermal resistance of the extruded polystyrene foam insulation will not vary by more than 10% from its published thermal resistance.
- B. In the United States, a 50-year thermal limited warranty is available on STYROFOAM™ Insulation products 1.5 inches and greater, that for a period of fifty (50) years, commencing with the date of manufacture printed on the unit label or insulation, that the insulation's actual thermal resistance will not vary by more than ten (10) percent from the minimum R-value identified in ASTM C578. For thicknesses less than 1.5 inches, other warranties may apply. Warranties are available as described at <http://building.dow.com/na/en/tools/warranty.htm>

## PART 2- PRODUCTS

### 2.1 FOAM-PLASTIC BOARD INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively, per ASTM E 84.
  - 1. Rigid closed cell extruded polystyrene foam insulation.
  - 2. Comply with ASTM C 578-95, Type IV, density 1.6 lb/cu. ft. min. compressive resistance 25 psi (ASTM D 1621-94)
  - 3. Thermal resistance: R-values of 6.0 and 5.6 min. per inch °F-ft<sup>2</sup>-h/Btu<sup>2</sup>/inch at 40 °F and 75 °F respectively (ASTM C 518-98). STYROFOAM™ CAVITYMATE™ Ultra Air Barrier Wall System
  - 4. Water absorption: Max. 0.1% by volume (ASTM C 272-91 (96)).
  - 5. Surface Burning Characteristics (ASTM C 578-95)
    - a. Flame spread: 0.
    - b. Smoke Developed: 155.
- B. Board dimensions: 15-3/4" x 96" with a nominal thickness of 1.75", 2.18", 2.5" & 3" (2.5" and 3.5" and custom thickness available dependent upon minimum order quantity- check with manufacturer).
- C. Acceptable manufacturer's product: The Dow Chemical Company STYROFOAM™ Brand CAVITYMATE™ Ultra Extruded Polystyrene Foam Insulation.

## 2.2 ADHESIVE

- A. Adhesive: type recommended by insulation manufacturer.
- B. Dow Chemical GREAT STUFF PRO™ Gaps & Cracks single component insulating foam sealant.

## PART 3 – EXECUTION

### 3.1 INSPECTION AND PREPARATION

- A. Verify that masonry joints are struck flush and that other conditions are satisfactory for proper installation.
- B. Remove concrete fins and mortar projections that interfere with placement of insulation boards.
- C. Do not install while raining
- D. Some surface moisture on the wall is OK and will aid in the curing of the GREAT STUFF PRO™ Insulating Foam Sealant. However, test the wall for proper adhesion if it appears to be wet

### 3.2 INSTALLATION

- A. Apply 2” diameter daubs of adhesive at each of the 4 corners of the board with one approximately in the middle (total of 5) on the inside face of insulation board.
- B. Fit insulation between wall ties and other obstructions with joints staggered providing ¼’ to ½” spacing at end joints.
  - 1. Press units firmly against inside wythe of masonry or other construction.
  - 2. Make insulation continuous.
- C. Fill all voids between insulation boards with single component insulating foam sealant to provide continuous vapor barrier.
- D. Comply with insulation manufacturer’s written instructions applicable to products and applications indicated.
- E. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed to ice, rain, or snow at any time.
- F. Extend insulation to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.

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### 3.3 CLEAN-UP

#### A. Remove and dispose of excess insulation, wrappings and other waster materials.

#### END OF SECTION

**NOTICE:** No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries or regions. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean the Dow legal entity selling the products to Customer unless otherwise expressly noted. **NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DOW. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

**CAUTION:** This product 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 thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400.

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

**CAUTION:** When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

**GREAT STUFF PRO™** sealant and adhesive products contain 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 long sleeves, gloves, and safety glasses or goggles. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure..