



# 1 PRODUCT NAME

## STYROFOAM™ CAVITYMATE™ Plus Extruded Polystyrene Insulation

## 2 Manufacturer

The Dow Chemical Company  
Building Solutions  
200 Larkin  
Midland, MI 48674  
1-866-583-BLUE (2583)  
Fax 1-989-832-1465  
[www.dowstyrofoam.com/architect](http://www.dowstyrofoam.com/architect)

## 3 Product Description

### BASIC USE

STYROFOAM™ CAVITYMATE™ Plus extruded polystyrene insulation is a moisture-resistant, durable and lightweight foam board designed specifically for use in wet cavity wall environments. Sized to fit snugly between wall ties, STYROFOAM CAVITYMATE Plus insulation saves time and money on the job site. Its closed-cell structure provides superior long-term thermal performance and moisture control.

### SIZES

Square Edge

Width and length:

16" x 96"

Thickness:

1.0", 1.5", 2.0"

Not all sizes are available in all areas. Consult your Dow representative for details.

## 4 Technical Data

### APPLICABLE STANDARDS

STYROFOAM™ CAVITYMATE™ Plus insulation meets ASTM C578, Type IV – Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. Applicable standards include:

- C518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- D1621 – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- E96 – Standard Test Methods for Water Vapor Transmission of Materials
- D696 – Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C With a Vitreous Silica Dilatometer
- C203 – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- D2126 – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
- C272 – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics

### CODE COMPLIANCES

STYROFOAM™ CAVITYMATE™ Plus insulation complies with the following codes:

- International Residential Code (IRC) and International Building Code (IBC); see ICC-ES NES NER-699, BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369

Contact your Dow sales representative or local authorities for state and local building code requirements and related acceptances.

### PHYSICAL/CHEMICAL PROPERTIES

STYROFOAM™ CAVITYMATE™ Plus insulation exhibits the properties and characteristics indicated in Table 1 when tested as represented.

For chemical resistance properties of STYROFOAM CAVITYMATE Plus insulation, see Table 2.

### ENVIRONMENTAL DATA

STYROFOAM™ CAVITYMATE™ Plus insulation is chlorofluorocarbon (CFC) free. It is manufactured with HCFC blowing agents, which have 94 percent less ozone depletion potential than standard CFC blowing agents.

STYROFOAM extruded polystyrene insulation products are reusable in many applications.

STYROFOAM CAVITYMATE Plus Extruded Polystyrene Insulation

TABLE 1

Physical Properties of STYROFOAM™ CAVITYMATE™ Plus Insulation	
Property and Test Method	Value
Thermal Resistance <sup>(1)</sup> per inch, ASTM C518 @ 75°F mean temp., ft <sup>2</sup> •h•°F/Btu, R-value, min.	5.0
Compressive Strength <sup>(2)</sup> , ASTM D1621, psi, min.	25
Water Absorption, ASTM C272, % by volume, max. ASTM D2842, % by volume, max.	0.1 <0.7
Water Vapor Permeance <sup>(3)</sup> , ASTM E96, perm, max.	1.1
Maximum Use Temperature, °F	165
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F	3.5 x 10 <sup>-5</sup>
Flexural Strength, ASTM C203, psi, min.	50

(1) Values are consistent with the criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460). R means resistance to heat flow. The higher the R-value, the greater the insulating power.

(2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first. Since STYROFOAM extruded polystyrene insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation.

(3) Based on 1" thickness.

TABLE 2

Physical Properties of STYROFOAM™ CAVITYMATE™ Plus Insulation	
Acid, inorganic, weak	Excellent
Acid, inorganic, strong	Excellent
Acid, organic, weak	Excellent
Acid, organic, strong	Good
Bases	Excellent
Alcohols, including isopropyl alcohol	Excellent
Methyl ethyl ketone	Not recommended
Polyglycols, including propylene glycol	Excellent
Hydrocarbons	Not recommended
Salts	Excellent
Insecticides	Not recommended
Kerosene	Poor
Mineral oil USP	Excellent
Naphtha (VMP)	Not recommended
Turpentine	Not recommended
Beer	Good
Gasoline	Not recommended
Fruit juices	Good

(1) Explanation of ratings:

Excellent = The plastic was unaffected for the duration of the test.  
Good = A very slight clouding or discoloration of the plastic.  
Poor = Considerable changes in plastic during exposure.  
Not recommended = Severe attack of the plastic. Became soft and unusable after a few hours of exposure.

NOTE: This table should be used as a guide only. For design purposes, specific test data on the intended application may be needed.

## FIRE PROTECTION

STYROFOAM™ CAVITYMATE™ Plus insulation is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

## 5 Installation

Boards of STYROFOAM™ CAVITYMATE™ Plus insulation are easy to handle, cut and install. Contact a local Dow representative or access the literature library at [www.dowstyrofoam.com/architect](http://www.dowstyrofoam.com/architect) for more specific instructions.

---

## 6 Availability

STYROFOAM™ CAVITYMATE™ Plus insulation is manufactured in several locations across North America and is distributed through an extensive network. For more information, call 1-800-232-2436.

## 7 Warranty

A 15-year limited thermal warranty is available.

## 8 Maintenance

Not applicable.

## 9 Technical Services

Dow can provide technical information to help address questions when using STYROFOAM™ CAVITYMATE™ Plus insulation. Technical personnel are available to assist with any insulation project. For technical assistance, call 1-866-583-BLUE (2583).

## 10 Filing Systems

- [www.dowstyrofoam.com/architect](http://www.dowstyrofoam.com/architect)
- [www.sweets.com](http://www.sweets.com)

---

**IN THE U.S.:**

- For Technical Information: **1-866-583-BLUE (2583)**
- For Sales Information: **1-800-232-2436**

**THE DOW CHEMICAL COMPANY**

- Building Solutions • 200 Larkin • Midland, MI 48674 • [www.dowstyrofoam.com/architect](http://www.dowstyrofoam.com/architect)

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. Dow assumes no obligation or liability for the information in this document. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

COMBUSTIBLE: Protect from high heat sources. Local building codes may require a protective or 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.

Building and/or construction practices unrelated to building materials 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.

*a proud partner of*

