

1 PRODUCT NAME

STYROFOAM CAVITYMATE Ultra Brand Insulation

2 Manufacturer

The Dow Chemical Company
STYROFOAM Brand Products
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Midland, MI 48674
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www.dowstyrofoam.com/
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3 Product Description

BASIC USE

STYROFOAM* CAVITYMATE* Ultra brand insulation is a moisture-resistant, durable and lightweight extruded polystyrene foam specifically designed for use in wet cavity wall environments.

A building's cavity wall is designed to accommodate moisture, which is the prime reason for insulation to lose its thermal resistance (R-value). Water resistance is the most important factor to consider when choosing cavity wall insulation. The closed-cell structure of STYROFOAM CAVITYMATE Ultra brand insulation makes it highly moisture resistant, maintaining long-term R-value.

The Dow Chemical Company manufactures STYROFOAM CAVITYMATE Ultra brand insulation by using unique,

¹U.S. Patents 5,373,026 and 5,397,807

patented¹ carbon black technology. This process gives STYROFOAM CAVITYMATE Ultra brand insulation an R-value of 5.6 per inch, greater than other STYROFOAM brand products. STYROFOAM CAVITYMATE Ultra brand insulation maintains all of the desirable characteristics of extruded polystyrene that architects and specifiers depend upon when choosing cavity wall insulation. It meets or exceeds the property requirements of ASTM C 578-85, Type IV (U.S.) and CAN/ULC S701-97 Type 3, and CCMC #12793-L (Canada).

SIZES

Thickness (U.S.): 1-3/4", 2-1/8"
Width and length (U.S.):
16" x 96"

Thickness (Canada): 40 mm,
55 mm, 68 mm, 75 mm, 91 mm
Width and length (Canada):
400 mm x 2400 mm
600 mm x 2400 mm

Not all products are available in all areas, check with your local Dow representative for product selection.

4 Technical Data

APPLICABLE STANDARDS

American Society for Testing & Materials (ASTM)

National Standard of Canada
• CAN/ULC S701-97 Type 3

Canadian Construction
Materials Centre (CCMC)
• 12793-L

PHYSICAL/CHEMICAL PROPERTIES

STYROFOAM CAVITYMATE Ultra brand insulation exhibits the properties and characteristics indicated in Tables 1 and 2 when tested as represented.

Exposure to ultraviolet radiation in sunlight for several weeks will cause the surface of STYROFOAM CAVITYMATE Ultra brand insulation to become yellow and dusty. A light-colored, opaque protective covering should be used if excessive solar exposure is expected. The surface degradation will have no measurable effect on the insulating value of the plastic foam unless the deterioration is allowed to continue until actual foam thickness is lost. Since the dust would impair the performance of adhesives and finishes, the dusty surface should be brushed off before these products are applied.

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

ENVIRONMENTAL DATA

STYROFOAM brand insulation products are chlorofluorocarbon (CFC) free. STYROFOAM brand products are manufactured with HCFC blowing agents, which have ozone depletion potentials 94 percent less than standard CFC blowing agents.

STYROFOAM CAVITYMATE Ultra brand insulation is reusable in many applications and is recyclable.



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FIRE PROTECTION

All wall systems incorporating STYROFOAM CAVITYMATE Ultra brand insulation should provide adequate fire protection. Coverings such as 15-minute thermal barriers or other alternatives tested on building code-approved diversified tests are regarded as acceptable in most applications, but always verify all federal and local requirements.

Consideration should be given to the benefits of and costs of additional fire protection gained by installing automatic fire detection, alarm and suppression systems.

For proper protection of plastic foam in storage, consult an insurer, local fire department or other authority having jurisdiction.

5 Installation

Boards of STYROFOAM CAVITYMATE Ultra brand insulation are easy to handle, cut and install. Contact a local Dow representative or access the literature archives at www.dowstyrofoam.com for more specific instructions.

6 Availability

STYROFOAM CAVITYMATE Ultra brand insulation is distributed through an extensive network of distributors. For more information, consult The Dow Chemical Company.



TABLE 1

Physical Properties of STYROFOAM CAVITYMATE Ultra Brand Insulation	
Property and test	Value
Thermal Resistance, ASTM C 518, C 177 (CAN/ULC S701-97)	
Aged R-value/inch (25.4 mm) 75°F (24°C) mean temp., ft ² •h•°F/Btu (m ² •C/W)	5.6
Aged R-value/inch (25.4 mm) 40°F (4°C) mean temp., ft ² •h•°F/Btu (m ² •C/W)	5.8
Aged R-value/inch (25.4 mm) 25°F (-4°C) mean temp., ft ² •h•°F/Btu (m ² •C/W)	6.0
Vertical Compressive Strength, ASTM D 1621, psi (kPa) min.	25 (170)
Water Absorption, ASTM C 272 (ASTM D 2842), % by volume	0.1 (0.7)

TABLE 2

Chemical Resistance of STYROFOAM CAVITYMATE Ultra Brand Insulation			
Acid, inorganic	Good	Gases, carbon hydroxide (CH ₄)	Good
Acid, organic	Good	Gases, chlorofluorocarbons	Good
Alcohol	Good	Gases, dioxide (O ₂)	Good
Aldehydes (formaldehyde, etc.)	Poor	Gases, nitrous hydroxide (NH ₃)	Good
Aromatic hydrocarbons	Poor	Gases, sulfur dioxide (SO ₂)	Good
Asphalts, solvent-based	Poor	Gasoline	Poor
Asphalts, water-based	Good	Ketones (acetones, MEK, etc.)	Poor
Bases (caustics)	Good	Mineral oil USP	Excellent
Bleach	Good	Naphthas (paint thinner)	Poor
Brines and other salts	Good	Olefins (ethylene, etc.)	Poor
Cements and mortar	Good	Paints, alcohol-based	Good
Chlorinated hydrocarbons	Poor	Paints, water-based	Good
Ethers	Poor	Water	Good
Gases, carbon dioxide (CO ₂)	Good		

7 Warranty

LIMITED THERMAL WARRANTY

The thermal performance of every board of STYROFOAM CAVITYMATE Ultra brand insulation is warranted for 30 years in the United States. This limited warranty, backed by The Dow Chemical Company, assures long-term insulating value. Warranty does not apply in Canada. Contact your local Dow representative for details.

8 Maintenance

Not applicable.

9 Technical Services

Dow can provide technical information to help address questions when using STYROFOAM CAVITYMATE Ultra brand insulation. Technical personnel are available to assist with any insulation project.

10 Filing Systems

- www.dowstyrofoam.com/architect (U.S.)
- www.dowstyrofoam.ca/4architects (Canada)

IN THE U.S.:

- For Technical Information: **1-866-583-BLUE (2583)**
- For Sales Information: **1-800-232-2436**
- www.dowstyrofoam.com/architect

IN CANADA:

- For Technical Information (English): **1-866-583-BLUE (2583)**; (French): **1-800-363-6210**
- For Sales Information (English): **1-800-232-2436**; (French): **1-800-565-1255**
- www.dowstyrofoam.ca/4architects

THE DOW CHEMICAL COMPANY

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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 in the U.S. or 1-519-339-3711 in Canada.

