



STYROFOAM™ Brand PLAZAMATE™

Extruded Polystyrene Foam Insulation

1. PRODUCT NAME

STYROFOAM™ Brand PLAZAMATE™
Extruded Polystyrene Foam Insulation

2. MANUFACTURER

The Dow Chemical Company
Dow Building Solutions
200 Larkin Center, 1605 Joseph Drive
Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-4465

3. PRODUCT DESCRIPTION

Basic Use

STYROFOAM™ Brand PLAZAMATE™
Extruded Polystyrene Foam Insulation
is designed for installation above
waterproofing membranes in plaza
deck applications.

STYROFOAM™ Brand PLAZAMATE™
Insulation helps the roof membrane
maintain a steady temperature,
minimizing the harmful effects of
freeze-thaw cycles weathering and
physical damage during and after
construction.

4. TECHNICAL DATA

Applicable Standards

STYROFOAM™ Brand PLAZAMATE™
Insulation meets ASTM C578, Type VII –
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
- D2842 – Standard Test Method for Water Absorption of Rigid Cellular Plastics

- C272 – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- E96 – Standard Test Methods for Water Vapor Transmission of Materials
- E84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- D696 – Standard Test Method for 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

Code Compliances

STYROFOAM™ Brand PLAZAMATE™
Insulation complies with the following
codes:

- Meets IBS/IRC requirements for foam plastic insulation; see ICC-ES ESR-2142
- ICBO-ES ER-2257
- BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369
- Factory Mutual Approved – Subject to conditions of approval as a roof insulation when installed as described in the current edition of FM Approval Guide

PHYSICAL PROPERTIES

STYROFOAM™ Brand PLAZAMATE™
Insulation exhibits physical properties
as indicated in Table 2 when tested as
represented.

ENVIRONMENTAL DATA

STYROFOAM™ Brand PLAZAMATE™
Insulation is hydrochlorofluorocarbon
(HCFC) free with zero ozone-depletion
potential. STYROFOAM™ Brand
PLAZAMATE™ Extruded Polystyrene Foam
Insulation is reusable in many applications.

Fire Protection

STYROFOAM™ Brand DECKMATE™ 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

STYROFOAM™ Brand PLAZAMATE™
Insulation is strong, yet lightweight and
easy to fabricate into various sizes and
shapes to meet specific design needs.
Because of the critical technical design
aspects of many of its applications, Dow
recommends that qualified designers or
consultants design your system.

Contact a local Dow representative
or access the literature library at
www.dowbuildingsolutions.com for
more specific instructions.

TABLE 1: Sizes, R-values and edge treatments for STYROFOAM™ Brand Plazamate™ Extruded Polystyrene Foam Insulation

Nominal Board Thickness ⁽¹⁾ , in .	R-value ⁽²⁾	Board Size, FT	Edge Treatment
1.5	7.5	24 × 96	Square Edge
2.0	10.5	24 × 96	Square Edge
3.0	15.0	24 × 96	Square Edge

(1) Not all product sizes are available in all regions.

(2) R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-values are expressed in ft²•h•°F/Btu. R-value determined by ASTM C518.

6. AVAILABILITY

STYROFOAM™ Brand PLAZAMATE™

Insulation is distributed through an extensive network of roofing distributors.

For product availability or for the name of your local Dow sales representative, call 1-800-232-2436.

7. WARRANTY

In the United States, a 50-year thermal limited warranty is available on STYROFOAM™ Insulation products 1.5 inches and greater. For thickness less than 1.5 inches, other warranties may apply. Warranties are available as described at <http://building.dow.com/na/en/tools/warranty.htm>

8. MAINTENANCE

Not applicable.

9. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using STYROFOAM™ Brand PLAZAMATE™ Insulation.

Technical personnel are available to assist with any insulation project. For technical assistance, call 1-866-583-BLUE (2583).

10. FILING SYSTEMS

- www.dowbuildingsolutions.com
- www.sweets.com

TABLE 2: Physical properties (U.S.) of STYROFOAM™ Brand PLAZAMATE™ Extruded Polystyrene Foam Insulation

Property and Test Method	Value
Thermal Resistance per inch, ASTM C518 @ 75°F mean temp., ft ² •h•°F/Btu, R-value ⁽¹⁾ , min.	5.0
Compressive Strength ⁽²⁾ , ASTM D1621, psi, min.	60
Water Absorption, ASTM C272, % by volume, max.	0.3
Water Vapor Permeance ⁽³⁾ , ASTM E96, perm, max.	0.8
Maximum Use Temperature, °F	165
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F	3.5 × 10 ⁻⁵
Flexural Strength, ASTM C203, psi, min.	75
Dimensional Stability, ASTM D2126, % linear change, max.	2.0
Surface Burning Characteristics ⁽⁴⁾ , ASTM E84, Flame Spread ⁽³⁾ , ASTM E84 Smoke Development, ASTM E84	15 165

(1) 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 Foam 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.

(4) This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.



The Dow Chemical Company

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US

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

dowbuildingsolutions.com

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Dow Polyurethane Foam Insulation and Sealants

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 (Material) Safety Data Sheet (M)SDS 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. When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers are properly vented to the outside. See website: <http://www.epa.gov/iaq/homes/hip-ventilation.html>. In Canada visit: <http://archive.nrc-cnrc.gc.ca/eng/ibp/irc/bsi/83-house-ventilation.html>.

STYROFOAM™ Brand Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read all the instructions and (M)SDS carefully before use. Wear protective clothing (including long sleeves), gloves, goggles and proper respiratory protection. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter is required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits. Provide adequate ventilation. Contents under pressure. STYROFOAM™ Brand SPF should be installed by a trained SPF applicator.

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.