



# STYROFOAM™ Brand Scoreboard Extruded Polystyrene Foam Insulation

## 1. PRODUCT NAME

STYROFOAM™ Brand Extruded Polystyrene Foam (XPS) Square Edge Insulation

## 2. MANUFACTURER

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

dowbuildingsolutions.com

## 3. PRODUCT DESCRIPTION

STYROFOAM™ Brand Scoreboard Insulation is an extruded polystyrene foam insulation board that is scored longitudinally on 16” and 24” centers, making it easy to size to commonly used widths. STYROFOAM™ Brand Scoreboard Insulation has excellent insulating characteristics, high resistance to water and water vapor, exceptional compressive strength and long-term durability.

### Basic Use

STYROFOAM™ Brand Scoreboard Insulation is designed for use in exterior cavity wall and foundation applications. Like all STYROFOAM™ Brand Extruded Polystyrene products, STYROFOAM™ Brand Scoreboard Insulation resists moisture to deliver a stable R-value\* over the long term.

## 4. TECHNICAL DATA

### Applicable Standards

STYROFOAM™ Brand Scoreboard 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
- C272 – Standard Test Method for Water Absorption of Core Materials for Structural Sandwich Constructions
- E96 – Standard Test Methods for Water Vapor Transmission of Materials
- 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 Scoreboard Insulation complies with the following codes:

- Meets IBC/IRC requirements for foam plastic insulation; see ICC-ES ESR 2142, 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 Properties

STYROFOAM™ Brand Scoreboard Insulation exhibits the properties and characteristics indicated in Table 2 when tested as represented.

Exposure to ultraviolet radiation in sunlight for several weeks will cause the surface of STYROFOAM™ Brand Scoreboard Insulation to become yellow and dusty. A lightcolored, 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.

### Environmental Data

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

STYROFOAM™ Brand Insulation products produced in North America contain an average of 20% pre-consumer recycled content certified by UL Environment Inc.

**TABLE 1: Sizes, R-Values and Edge Treatments for STYROFOAM™ Brand Scoreboard Extruded Polystyrene Foam Insulation**

| Nominal Board Thickness <sup>(1)</sup> (in.) | R-Value <sup>(2)</sup> | Board Size (Feet) | Edge Treatment |
|----------------------------------------------|------------------------|-------------------|----------------|
| 0.75                                         | 3.8                    | 4 × 8             | Square Edge    |
| 1.0                                          | 5.0                    | 4 × 8             | Square Edge    |
| 1.5                                          | 7.5                    | 4 × 8             | Square Edge    |
| 2.0                                          | 10.0                   | 4 × 8             | Square Edge    |
| 2.5                                          | 12.5                   | 4 × 8             | Square Edge    |
| 3.0                                          | 15.0                   | 4 × 8             | Square Edge    |

(1) Not all product sizes are available in all regions. Additional product sizes are available by custom order. Consult your Dow sales representative about other sizes and lead-time requirements.

(2) Aged R-value at 1” cured foam @ 75°F mean temperature. R-value expressed in ft<sup>2</sup>•h•°F/Btu. R-value determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).

\*R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-value determined by ASTM C518.

## Fire Information

### STYROFOAM™ Brand Scoreboard

Insulation is combustible; protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult MSDS, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector.

## 5. INSTALLATION

STYROFOAM™ Brand Scoreboard Insulation is easy to handle, cut and install. Visit [www.dowbuildingsolutions.com](http://www.dowbuildingsolutions.com) or contact a local Dow representative for more specific instructions.

## 6. AVAILABILITY

### STYROFOAM™ Brand Scoreboard

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

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>

**TABLE 2: Physical Properties of STYROFOAM™ Brand Scoreboard Extruded Polystyrene Foam Insulation**

| Property And Test Method                                                                                                 | Value                  |
|--------------------------------------------------------------------------------------------------------------------------|------------------------|
| Thermal Resistance per inch, ASTM C518 @ 75°F mean temp., ft <sup>2</sup> •h•°F/Btu, min., R-value <sup>(1)</sup> , min. | 5.0                    |
| Compressive Strength <sup>(2)</sup> , ASTM D1621, psi, min.                                                              | 25                     |
| Water Absorption, ASTM C272, % by volume, max.                                                                           | 0.3                    |
| Water Vapor Permeance <sup>(3)</sup> , ASTM E96, perm, max.                                                              | 1.5                    |
| Maximum Use Temperature, °F                                                                                              | 165                    |
| Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F                                                             | 3.5 × 10 <sup>-5</sup> |
| Flexural Strength, ASTM C203, psi, min.                                                                                  | 50                     |
| Dimensional Stability, ASTM D2126, % linear change, max.                                                                 | 2.0                    |
| Surface Burning Characteristics, ASTM E84, Flame Spread <sup>(4)</sup>                                                   | 15                     |
| Smoke Developed                                                                                                          | 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™ Brand 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.

## 8. MAINTENANCE

Not applicable.

## 9. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using STYROFOAM™ Brand Scoreboard 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](http://www.dowbuildingsolutions.com)

[www.sweets.com](http://www.sweets.com)



## The Dow Chemical Company

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## US

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

[dowbuildingsolutions.com](http://dowbuildingsolutions.com)

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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.

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.