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 1-989-832-1465
dowbuildingsolutions.com

3. PRODUCT DESCRIPTION
STYROFOAM™ Brand Square Edge Insulation is an extruded polystyrene foam insulation board that meets the needs of the commercial foundation and building floor slab market. This insulation can also be used for attics, foundations/slabs and crawl spaces in residential applications.

STYROFOAM™ Brand Square Edge Extruded Polystyrene Foam (XPS) Insulation has more than 60 years of proven performance in wet environments. The closed-cell structure of STYROFOAM™ Brand Square Edge Extruded Polystyrene Foam (XPS) Insulation resists water pickup, enabling it to retain a high R-value over time—a necessary property in wet, below-grade commercial foundation applications.

Basic Use
STYROFOAM™ Brand Square Edge Extruded Polystyrene Foam (XPS) Insulation helps protect foundation damp-proofing and waterproofing, especially during backfilling. It also provides a secondary barrier against groundwater leakage. With STYROFOAM™ Brand Square Edge Insulation, freeze-thaw cycling of the foundation wall is minimized, reducing the potential for cracking. And a warmer foundation can reduce the potential for condensation.

4. TECHNICAL DATA

Applicable Standards
STYROFOAM™ Brand Square Edge Insulation meets ASTM C578, Type IV—Standard Specification for Rigid Cellular Polystyrene Thermal Insulation. Applicable standards include:
- 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

Code Compliances
STYROFOAM™ Brand Square Edge Insulation complies with the following codes:
- International Residential Code (IRC) and International Building Code (IBC) See ESR-2142
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369

<table>
<thead>
<tr>
<th>Property And Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thermal Resistance(1) per inch, ASTM C518, ft²•h•°F/Btu, R-value, min. @ 75°F mean temp.</td>
<td>5.0</td>
</tr>
<tr>
<td>@ 40°F mean temp.</td>
<td>5.4</td>
</tr>
<tr>
<td>@ 25°F mean temp.</td>
<td>5.6</td>
</tr>
<tr>
<td>Compressive Strength(2), ASTM D1621, psi, min.</td>
<td>25</td>
</tr>
<tr>
<td>Water Absorption, ASTM C272, % by volume, max.</td>
<td>0.3</td>
</tr>
<tr>
<td>Water Vapor Permeance(3), ASTM E96, perm, max.</td>
<td>1.5</td>
</tr>
<tr>
<td>Maximum Use Temperature, °F</td>
<td>165</td>
</tr>
<tr>
<td>Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F</td>
<td>$3.5 \times 10^{-6}$</td>
</tr>
<tr>
<td>Flexural Strength, ASTM C203, psi, min.</td>
<td>50</td>
</tr>
</tbody>
</table>

(1) R-values are consistent with criteria of ASTM C578 and the requirements of the FTC R-value rule (16 CFR Part 460).
(2) Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.
(3) Based on 1” thickness.

* R means resistance to heat flow. The higher the R-value, the greater the insulating power. R-value determined by ASTM C518.
The Dow Chemical Company
Building Solutions
200 Larkin • Midland, MI 48674

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

Physical Properties

STYROFOAM™ Brand Square Edge Insulation exhibits the physical properties indicated in Table 1 when tested as represented.

Environmental Data

STYROFOAM™ Brand Square Edge Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone depletion potential. STYROFOAM™ Brand Square Edge 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.

Fire Information

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

5. INSTALLATION

STYROFOAM™ Brand Square Edge Insulation boards are easy to handle, cut using a utility knife or serrated blade, and install. The square edge boards are designed to ensure energy efficiency and minimize on-site cutting and waste. Use a polystyrene-compatible adhesive to hold the boards in place during backfilling. Apply caulk or mastic to the top of the board to prevent water infiltration behind the insulation. To complete the installation, pare the above-grade portions of STYROFOAM™ Brand Square Edge Insulation to protect from solar radiation.

It is recommended that any masonry irregularities or jagged surfaces on the foundation wall or slab be removed prior to installation. Below-grade walls should be protected from moisture leakage and dampness prior to installation of STYROFOAM™ Brand Square Edge Insulation. Codeapproved drainage systems should be installed. Ensure foundation drainage meets local codes.

Visit www.dowbuildingsolutions.com or contact a local Dow representative for more specific instructions.

6. AVAILABILITY

STYROFOAM™ Brand Square Edge Insulation is distributed through an extensive network. For more information, contact your local Dow representative or call 1-800-232-2436.

7. WARRANTY

In the United States, a 50-year thermal limited warranty is available on STYROFOAM™ 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 Square Edge 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

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US

Technical Information: 1-866-583-BLUE (2583)
Sales Information: 1-800-232-2436
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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 1-989-636-4450.

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.

Seal and Insulate with ENERGY STAR

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