

STYROFOAM SIS™ BRAND STRUCTURAL INSULATED SHEATHING



STYROFOAM SIS™ Brand Structural Insulated Sheathing combines structural lateral bracing and transverse load, insulation and water-resistive barrier properties in one solution. This sheathing can be used as braced wall panels integrated with other rigid insulated sheathing. It can also serve as continuous structural insulated sheathing over the entire wall line. STYROFOAM SIS™ Brand Structural Insulated Sheathing provides high R-value* (R-3 at 0.5"; R-5.5 at 1") and eliminates the need for wood structural panels (e.g., OSB) and housewrap, wood let-in bracing or metal T-bracing. In addition, STYROFOAM SIS™ Brand Structural Insulated Sheathing helps lower the installed cost because it allows the builder to install structural support, insulation and a water-resistive barrier with one product and one less trip around the house.

STYROFOAM SIS™ Brand Structural Insulated Sheathing is the first structural insulated sheathing to achieve significant R-values, while meeting the acceptance criteria for the racking shear evaluation per ICC-ES AC269. STYROFOAM SIS™ Brand Structural Insulated Sheathing can also be used and left exposed in gables and attics.

PROPERTIES

The core of STYROFOAM SIS™ Brand Structural Insulated Sheathing consists of a closed-cell, moisture-resistant rigid polyisocyanurate foam with excellent compressive strength and long-term, stable R-value. A BLUE™, non-reflective, resilient exterior surface provides water resistance, high durability and excellent curb appeal. And a structural member provides additional structural properties.

Easy and quick to install, STYROFOAM SIS™ Brand Structural Insulated Sheathing weighs less than 16 lbs per 4' x 8' (0.5" thick) board, compared to approximately 45 lbs for OSB.

For features and benefits of STYROFOAM SIS™ Brand Structural Insulated Sheathing, refer to Table 1.

STYROFOAM SIS™ Brand Structural Insulated Sheathing exhibits the properties indicated in Table 2 when tested as represented.

STYROFOAM SIS™ Brand Structural Insulated Sheathing meets ASTM C1289-07 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board.

SIZES

Width and length:
4' x 8', 4' x 9', 4' x 10'

Product thicknesses and R-values are shown in Table 3.

INSTALLATION

Boards of STYROFOAM SIS™ Brand Structural Insulated Sheathing are easy to handle, cut and install. Boards are easily attached to framing with recommended fasteners. (See installation guide for more information – Form No. 179-07919.) To qualify as a water-resistive barrier, tape all joints with WEATHERMATE™ Construction Tape (2-7/8" wide), or cover with WEATHERMATE™ or WEATHERMATE™ Housewrap – Plus and tape seams.

WARRANTY

STYROFOAM SIS™ Brand Structural Insulated Sheathing is backed with a 15-year limited thermal performance warranty. Certain conditions apply; see warranty document for details.

TABLE 1: FEATURES AND BENEFITS OF STYROFOAM SIS™ BRAND STRUCTURAL INSULATED SHEATHING

Feature	Benefit
Three-in-one construction (insulation, water-resistive barrier, structural support properties)	<ul style="list-style-type: none"> Eliminates need for wood structural panels and housewrap, metal T-bracing or wood let-in bracing In many cases, costs less than wood structural panels/housewrap combination Reduces installation time with one less trip around the house Reduces condensation in wall cavity
Structural bracing	<ul style="list-style-type: none"> Flexibility to use as braced wall panel or continuous structural sheathing
High R-value (R-5.5 at 1")	<ul style="list-style-type: none"> Helps meet high energy-efficiency standards Helps reduce energy consumption, helping reduce heating/cooling costs and greenhouse gas emissions
Continuous wall insulation	<ul style="list-style-type: none"> Covers wall studs and cavity, enhancing thermal efficiency and moisture management Increases R-value of walls
Water-resistive barrier	<ul style="list-style-type: none"> Resists moisture intrusion and air infiltration
Lightweight (<16 lbs per 4' x 8' board; 0.5" thick)	<ul style="list-style-type: none"> Easier, faster installation
Sound-barrier capability	<ul style="list-style-type: none"> Performance similar to other structural sheathing products in wall assemblies
Up to 80% post-consumer recycled content	<ul style="list-style-type: none"> Helps meet sustainability objectives Helps homes qualify for Leadership in Energy and Environmental Design (LEED)** credits

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*R means resistance to heat flow. The higher the R-value, the greater the insulating power.

**LEED is a registered trademark of the U.S. Green Building Council

TABLE 2: PHYSICAL PROPERTIES OF STYROFOAM SIS™ BRAND STRUCTURAL INSULATED SHEATHING

Property and Test Method	Value
Compressive Strength ⁽¹⁾ , ASTM D1621, psi, min.	20
Water Absorption, ASTM D1037, Method B, % by weight	<9
Water Vapor Permeance, ASTM E96, perms	<0.3

(1) Vertical compressive strength is measured at 10 percent deformation or yield, whichever occurs first.

TABLE 3: STYROFOAM SIS™ BRAND STRUCTURAL INSULATED SHEATHING R-VALUES

Nominal Foam Thickness, in.	R-Value ⁽¹⁾
0.50	3.0
1.0	5.5

(1) Stabilized R-values of core foam @ 75°F mean temperature determined in accordance with ASTM C518. R-values expressed in ft²•h•°F/Btu.

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NOTICE: Changes to the International Residential Code require the installation of a water-resistive barrier (WRB) within most exterior wall assemblies in residential construction. The following Dow insulated sheathing products qualify as a WRB when installed according to the installation instructions developed for "installation of foam sheathing as a water-resistive barrier": STYROFOAM™ DURAMATE™ Plus, STYROFOAM™ Residential Sheathing, STYROFOAM™ Tongue and Groove, STYROFOAM SIS™, STYROFOAM™ Square Edge, STYROFOAM™ Residing Board, STYROFOAM™ High Performance Underlayment, THERMAX™ Sheathing, TUFF-R™ and Super TUFF-R™ and therefore do not require the use of a building paper or a housewrap as a WRB. When a WRB is not needed, these Dow foam sheathings may be installed according to standard installation instructions for foam sheathing from Dow. Be sure products and installation instructions meet code requirements for your particular location. Note: WEATHERMATE™ and WEATHERMATE™ Plus Housewraps have already qualified as water-resistive alternatives to the prescribed felt (see Evaluation Reports NER-593 and NER-640 for approved alternative).

Warning: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

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.

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.

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FOR TECHNICAL INFORMATION: 1-866-583-BLUE (2583)

FOR SALES INFORMATION: 1-800-232-2436

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Dow Building Solutions • 200 Larkin • Midland, MI 48674



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