



STYROFOAM SIS™ Brand

STRUCTURAL INSULATED SHEATHING

STRUCTURED FOR STRENGTH

Strengthen your bottom line by increasing efficiency in every home you build: efficiency of design, efficiency of effort and perhaps most important, efficient use of energy required for heating and cooling. All without adding a single step to the construction process.



STYROFOAM SIS™ Brand

STRUCTURAL INSULATED SHEATHING

Innovative STYROFOAM SIS™ Brand Structural Insulated Sheathing combines four benefits in one product:



- ▶ Structural lateral bracing and transverse wind load resistance
- ▶ Significant insulation performance
- ▶ Water-resistive barrier
- ▶ Air barrier

Build Strong Structures Four-in-one STYROFOAM SIS™ Brand Structural Insulated Sheathing is code-compliant for use as braced wall panels attached next to other rigid insulated sheathing or as continuous structural insulated sheathing over the entire wall line. It has the dimensional stability and racking strength to meet or exceed tough building codes.

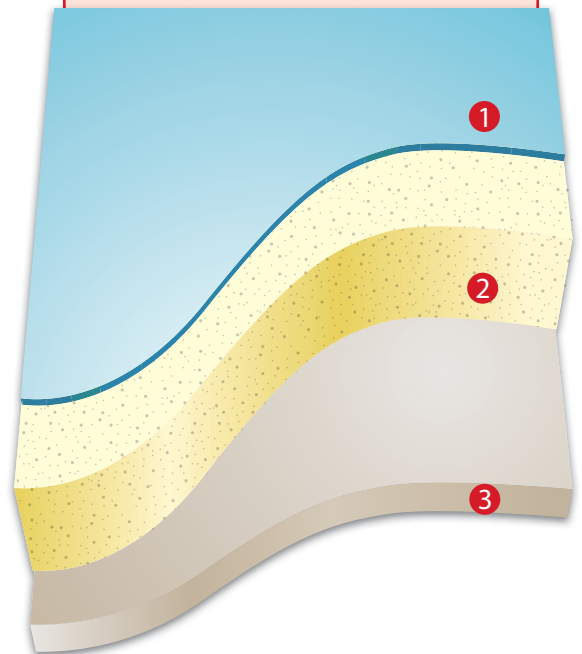
Build a Strong Environment STYROFOAM SIS™ Brand Structural Insulated Sheathing is made from up to 80% post-consumer recycled content. The industry's first structural insulated sheathing to achieve significant R-values (R-3.0 at 0.5"; R-5.5 at 1"), SIS meets the definition of continuous insulation as defined by IECC. SIS walls are high on performance by meeting high standards for energy efficiency and reduced energy consumption.

Build a Strong Reputation Get the edge in your market by using American-made STYROFOAM SIS™ to build homes that help your customers save energy dollars every year.

Build a Strong Bottom Line Using SIS is a great way to save time and money by allowing the builder to use one product to achieve many functions: strong structure, insulation, WRB and air barrier. STYROFOAM SIS™ eliminates the need for wood structural panels and housewrap, metal T-bracing or wood let-in bracing, reducing time, labor and material costs. The lightweight panels are easy to work with and are just one-third the weight of OSB.

STYROFOAM SIS™ Brand Structural Insulated Sheathing consists of three layers:

- 1 A blue, non-reflective, resilient exterior surface provides water resistance, high durability and excellent curb appeal
- 2 Close-cell, moisture-resistant rigid polyisocyanurate foam core for excellent compressive strength, long-term, stable R-value and continuous air barrier
- 3 Thin high-pressure laminated structural member



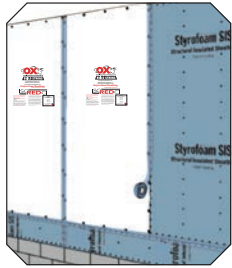
Scan for STYROFOAM SIS product spec sheets and installation instructions.

INSTALLATION



INSTALLING PANELS

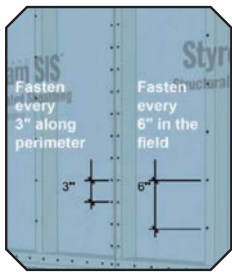
- ▶ Install panels so that the foam faces the exterior of house.
- ▶ For structural use, all edges must be fastened and backed by minimum 2" (nominal) framing.
- ▶ For non-structural uses, edges don't need to be backed.



INSTALLING PANELS (intermittent)

When used in combination with nonstructural foam sheathing:

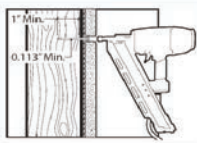
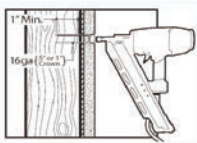
- ▶ Use STYROFOAM SIS™ Sheathing in areas where bracing is required.
- ▶ Supplement remaining wall with regular foam sheathing, such as ISO RED ci Polyiso Foam Sheathing.

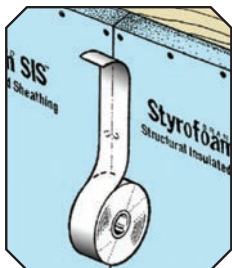


FASTENING

- ▶ Fasten SIS using approved nails or staples every 3" around the perimeter of the board.
- ▶ Nail or staple every 6" in the fields of the board.
- ▶ A 3-3 pattern may also be used for staples, resulting in lower bracing percentage requirements

NOTE: STYROFOAM SIS™ Panels used in non-structural areas may be installed using fasteners spaced 6" at the perimeter of the board and 12" in the field of the board.

Product	Recommended Nail Type	Recommended Staple Type
0.5-inch STYROFOAM SIS™	Shank Diameter: 0.113 min. Stud Penetration: 1-inch min.	Gauge: 16 Crown: 0.5-inch or 1-inch Stud Penetration: 1-inch min.
1-inch STYROFOAM SIS™	Shank Diameter: 0.113 min. Stud Penetration: 1-inch min.	Gauge: 16 Crown: 0.5-inch or 1-inch Stud Penetration: 1-inch min.
		



TAPING

To ensure a water-resistive barrier and air barrier, all seams and joints must be covered by 2-7/8" (73mm) wide Weathermate Construction Tape™. Flashing tape must comply with AC 148.

- ▶ Center the tape over the joint to cover fasteners.
- ▶ When taping joints, use shingle fashion technique.
- ▶ Tape must be installed in temperatures between 15 degrees F and 120 degrees F. (service temperatures of -40 and 220 degrees F.)
- ▶ Housewrap is not required to meet WRB and air barrier requirements if all joints are taped.

PRODUCT NAME

STYROFOAM SIS™ Brand
Structural Insulated Sheathing

PRODUCT DESCRIPTION

STYROFOAM SIS Brand Structural Insulated Sheathing combines structural lateral bracing and transverse wind load resistance, insulation, water-resistive barrier and air 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 and air 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 IRC and IBC wall bracing criteria. SIS also meets the definition of continuous insulation as defined by IECC.

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

STYROFOAM SIS Brand Structural Insulated Sheathing is easy to handle, cut and install. SIS is easily attached to framing with recommended fasteners. (See installation guide for more information- www.oxstyrofoamsis.com) To qualify as a water-resistive barrier, tape all joints with WEATHERMATE™ Construction Tape (2-7/8" wide).

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.

STYROFOAM SIS™ Brand

TECHNICAL SPECIFICATIONS

TABLE 1: Features and Benefits of STYROFOAM SIS™ Brand Structural Insulated Sheathing

Feature	Benefit
Four-in-one construction (structural strength, insulation, water-resistive barrier and air barrier 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 intermittent or continuous structural sheathing
High R-value* (R-5.5 at 1" , R-3.0 at 1/2")	<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

NOTICE: No freedom from any patent owned by OX Engineered Products, LLC or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. OX Engineered Products, LLC assumes no obligation or liability for the information in this document. The product shown in this literature may not be available for sale and/or available in all geographies where OX Engineered Products, LLC is represented. The claims made may not have been approved for use in all countries or regions. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY OX. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

Changes to the International Residential Code require the installation of a water-resistive barrier (WRB) within most exterior wall assemblies in residential construction. OX Engineered Products, LLC STYROFOAM SIS insulated sheathing product qualifies as a WRB when installed according to the installation instructions developed for "installation of foam sheathing as a water-resistive barrier" and therefore does not require the use of a building paper or a housewrap as a WRB. Be sure products and installation instructions meet code requirements for your particular location.

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, call OX Engineered Products, LLC at 800-345-8881.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including OX Engineered Products, LLC can give assurance that mold will not develop in any specific system.

STYROFOAM SIS™ trademark license owned by OX Engineered Products, LLC and all other trademarks, registered trademarks, copyrights and logos are the property of their respective owners.

* 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.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. 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.

All disputes for any product or service provided by OX should be determined under the applicable laws of the Commonwealth of Pennsylvania and have the proper and exclusive venue in the York County Court of Common Pleas, York, PA; or the Federal Circuit Court for the Middle District of Pennsylvania.

TABLE 2: Physical Properties of STYROFOAM SIS Brand Structural Insulated Sheathing

Property and Test Method	Value
Compressive Strength ⁽¹⁾ , ASTM D1621, psi, min.	25
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 ⁽²⁾
0.50	3.0
1.0	5.5

⁽²⁾ Stabilized R-values of core foam @ 75°F mean temperature determined in accordance with ASTM C518. R-values expressed in ft²·h·°F/Btu.

Storage: Avoid storage directly on the ground. Maintain packaging protection until using the product.

