

### 1 PRODUCT NAME STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI Extruded Polystyrene Insulation

### 2 Manufacturer

The Dow Chemical Company Building Solutions 200 Larkin Midland, MI 48674 1-866-583-BLUE (2583) Fax 1-989-832-1465 www.dowstyrofoam.com/architect

# **3** Product Description

#### **BASIC USE**

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI extruded polystyrene insulation is a versatile, utility-grade product manufactured for applications that require a high R-value\* and outstanding moisture resistance without the need for high compressive strength. STYROFOAM UTILITYFIT XPS 15 PSI insulation is designed for use when a Type X, or lower-compressive-strength, product is needed. If the superior properties of a Type IV 25 psi product are not required, STYROFOAM UTILITYFIT XPS 15 PSI insulation is a good choice for your application.

#### **SIZES**

Square Edge/Tongue & Groove/Scoreboard Width and length: 2' x 8', 4' x 8', 4' x 9' Thickness: 1", 1.5", 2", 3"

Not all products are available in all areas. Consult your Dow representative about other sizes and lead-time requirements.

### **4** Technical Data

#### APPLICABLE STANDARDS

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI insulation meets ASTM C578 Type X – Standard Specification for Rigid Cellular Polystyrene 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
- D696 Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics between -30°C and 30°C with a Vitreous Silica Dilatometer

#### CODE COMPLIANCE

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI insulation complies with the following codes:

- Meets IBC/IRC requirements for foam plastic insulation; see ICC-ES NER-699
- ICBO-ES ER 2257
- BOCA-ES RR 21-02
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369

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

#### PHYSICAL/CHEMICAL PROPERTIES

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI insulation exhibits the properties and characteristics indicated in Table 1 when tested as represented.

Prolonged exposure to ultraviolet radiation may cause the surface of STYROFOAM UTILITYFIT XPS 15 PSI insulation to become faded and dusty. A light-colored, 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.

For chemical resistance properties of STYROFOAM UTILITYFIT XPS 15 PSI insulation, see Table 2.

#### **ENVIRONMENTAL DATA**

STYROFOAM<sup>54</sup> UTILITYFIT<sup>55</sup> XPS 15 PSI insulation is manufactured with HCFC blowing agents, which have 94 percent less ozone depletion potential than standard CFC blowing agents.

STYROFOAM UTILITYFIT XPS 15 PSI insulation is reusable in many applications.

#### FIRE PROTECTION

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI 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. TYROFOAM UTILITYFIT XPS 15 PS xtruded Polystyrene Insulation

	TABLE 1	
Physical Properties of STYROFOAM™ UTILITYFIT™ XPS 15 PSI Insulation		
Property and Test Method	Value	
Thermal Resistance, per inch, ASTM C518 @ 75°F mean temp., ft <sup>2</sup> •h•°F/Btu, R-value <sup>(1)</sup> , min.	5.0	
Compressive Strength <sup>(2)</sup> , ASTM D1621, psi, min.	15	
Water Absorption, ASTM C272, % by volume, max.	0.3	
Maximum Use Temperature, °F	165	
Coefficient of Linear Thermal Expansion, ASTM D696, in/in•°F	3.5 x 10 <sup>-5</sup>	

(1) Values are consistent with the criteria of ASTM C578 and the FTC R-value rule (16 CFR Part 460). R means resistance to

Values are consistent with the criteria of ASTM C578 and the FTC R-value rule (16 CFR Part 460). R means resistance to heat flow. The higher the R-value, the greater the insulating power.
Vertical compressive strength is measured at 10 percent deformation or yield, whichever occurs first. Since STYROFOAM extruded polystyrene insulations are visco-elastic materials, adequate design safety factors should be used to prevent long-term creep and fatigue deformation. For static loads, 3:1 is suggested. For dynamic loads, 5:1 is suggested. Contact Dow for design recommendations.

#### 5 Installation

Boards of STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI insulation are easy to handle, cut and install. Contact a local Dow representative or access the literature library at www.dowstyrofoam.com/architect or www.insulateyourhome.com for more specific instructions.

#### 6 **Availability**

STYROFOAM<sup>™</sup> UTILITYFIT<sup>™</sup> XPS 15 PSI insulation is manufactured in several locations across North America and is distributed through an extensive network. For more information, call 1-800-232-2436.

# Warranty

Not applicable.

## Maintenance

Not applicable.

# **Technical Services**

Dow can provide technical information to help address questions when using STYROFOAM<sup>™</sup> UTILITYFIT™ XPS 15 PSI insulation. Technical personnel are available to assist with any insulation project. For technical assistance, call 1-866-583-BLUE (2583).

#### IU Filing Systems

- www.dowstyrofoam.com/architect
- www.insulateyourhome.com
- www.sweets.com •

	TABLE 2
Chemical Resistance <sup>(1)</sup> UTILITYFIT™ XPS 15	
Acid, inorganic, weak	Excellent
Acid, inorganic, strong	Excellent
Acid, organic, weak	Excellent
Acid, organic, strong	Good
Bases	Excellent
Alcohols, including isopropyl alcohol	Excellent
Methyl ethyl ketone	Not recommended
Polyglycols, including propylene glycol	Excellent
Hydrocarbons	Not recommended
Salts	Excellent
Insecticides	Not recommended
Kerosene	Poor
Mineral oil USP	Excellent
Naphtha (VMP)	Not recommended
Turpentine	Not recommended
Beer	Good
Gasoline	Not recommended
Fruit juices	Good

(1) Explanation of ratings:

Excellent = The plastic was unaffected for the duration of the test Good = A very slight clouding or discoloration of the

plastic. Poor = Considerable changes in plastic during exposure.

Not recommended = Severe attack of the plastic. Became soft and unusable after a few hours of exposure.

NOTE: This table should be used as a guide only. For design purposes, specific test data on the intended application may be needed.

#### IN THE U.S.:

• For Technical Information: 1-866-583-BLUE (2583)

• For Sales Information: 1-800-232-2436

THE DOW CHEMICAL COMPANY

• Building Solutions • 200 Larkin • Midland, MI 48674 • www.dowstyrofoam.com/architect

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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. 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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