



DuPont™ Styrofoam™ Brand UtilityFit™ ST-100 Insulation

Versatile Insulation with High Moisture and Thermal Resistance
U.S. HFC Regulation Compliant Formulation

FEATURES/BENEFITS

Description

DuPont™ Styrofoam™ Brand UtilityFit™ ST-100 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™ Brand UtilityFit™ ST-100 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™ Brand UtilityFit™ ST-100 Insulation is a favorable choice for your application.

Available Sizes

Styrofoam™ Brand UtilityFit™ Insulation is available in a range of sizes, R-values and edge treatments, found in Table 1.

Ease of Installation

Styrofoam™ Brand UtilityFit™ ST-100 Insulation is:

- Manufactured for versatility in commercial and residential applications
- Available in square, tongue and groove, and scoreboard edge treatments
- Easy to handle, cut and install.
- Durable with high R-value and outstanding moisture resistance

Sustainable Solutions

Styrofoam™ Brand UtilityFit™ ST-100 Insulation uses BluEdge™ technology. Styrofoam™ Brand UtilityFit™ ST-100 Insulation is designed to be compliant with U.S. state HFC regulations where sold. It uses enhanced level of sustainable blowing agents, and BluEdge™ flame retardant technology. It is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential and no-VOC (volatile organic compound) foaming agent technology. 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 UtilityFit™ ST-100 Insulation

Nominal Board Thickness ¹ (in.)	R-Value ²	Board Size (ft.)	Edge Treatment
1.0	5.0	2 x 8, 4 x 8, 4 x 9	Square Edge Tongue and Groove, Scoreboard
1.5	7.5	2 x 8, 4 x 8, 4 x 9	Square Edge Tongue and Groove, Scoreboard
2.0	10.0	2 x 8, 4 x 8, 4 x 9	Square Edge Tongue and Groove, Scoreboard
3.0	15.0	2 x 8, 4 x 8, 4 x 9	Square Edge Tongue and Groove, Scoreboard

¹ Not all product sizes are available in all regions. Additional product sizes are available by custom order. Consult your DuPont 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 ft²·h·°F/Btu. R-value determined by ASTM C518 using the aging process in ASTM C1289 (90 days @ 140°F).

PROPERTIES

Styrofoam™ Brand UtilityFit™ ST-100 Insulation exhibits physical properties as indicated in Table 2 when tested as represented. Review all instructions and Safe Handling document on [BeyondBlue.DuPont.com](https://www.beyondblue.dupont.com) before use. Please contact DuPont at 1-866-583-2583 when additional guidance is required for writing specifications that include this product.

TABLE 2: Physical Properties of Styrofoam™ Brand UtilityFit™ ST-100 Insulation

Test Method	Property	Typical Value	Units
ASTM C518	Thermal Resistance per inch @ 75°F mean temp.	5	ft²·h·°F/Btu, R-value¹, min.
ASTM D1621	Compressive Strength²	15	psi, min.
ASTM C272	Water Absorption	0.1	% by volume, max.
ASTM D696	Maximum Use Temperature	165	°F
ASTM D696	Coefficient of Linear Thermal Expansion	3.5 x 10⁻⁵	in/in·°F
ASTM E84	Surface Burning Characteristics, for both foam core and finished product	Class A	
	Flame Spread	25	
	Smoke Developed	<450	

¹ 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.
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. For static loads, 3:1 is suggested. For dynamic loads, 5:1 is suggested. Contact DuPont for design recommendations.

TESTING

Applicable Standards

DuPont™ Styrofoam™ Brand UtilityFit™ ST-100 Insulation meets ASTM C578, Type X – 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
- **D696** – Standard Test Method for Linear Thermal Expansion of Plastics Between -30°C and 30°C with a Vitreous Silica Dilatometer

Notice

Styrofoam™ Brand UtilityFit™ ST-100 Insulation complies with the following codes:

- Meets IBS/IRC requirements for foam plastic insulation; see ICC-ES ESR-4755
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate D369

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

HANDLING

WARNING: For Professional Use Only. Read and follow the entire Handling section and the Safe Handling document on BeyondBlue.DuPont.com carefully before use. The information below is designed to protect the user and allow for safe use and handling of Styrofoam™ Brand products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- Prolonged exposure to ultraviolet radiation may cause the surface of **Styrofoam™ Brand UtilityFit™ ST-100 Insulation** to become faded and dusty. Since dust would impair the performance of adhesives and finishes, the dusty surface should be brushed off before these products are applied.
- 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.
- Cover exposed Styrofoam™ with a light opaque covering to protect from weather and sunlight. Do not use clear plastic covering.
- **Styrofoam™ Brand UtilityFit™ ST-100 Insulation** is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier. For more information, consult Safe Handling document on BeyondBlue.DuPont.com, call DuPont at 1-866-583-2583 or contact your local building inspector.

Disposal

Dispose of any residual Styrofoam™ Brand product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.



**For more information visit us at
styrofoam.com
or call 1-833-338-7668**

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DuPont™ Styrofoam™ Brand ST-100 Insulation

CAUTION: This product 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 Safe Handling document on BeyondBlue.DuPont.com call DuPont at 1-866-583-2583 or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada.

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 DuPont can give assurance that mold will not develop in any specific system.

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