

Styrofoam™ Brand Cladmate™ CM20 Extruded Polystyrene Foam Insulation

Versatile, Moisture-Resistant Insulation with High Compressive Strength

FEATURES/BENEFITS

Description

Styrofoam™ Brand Cladmate™ CM20 Insulation* is a moisture-resistant, durable and lightweight extruded polystyrene foam board specifically designed for use in wet cavity wall environments in commercial applications.

The closed-cell structure of Styrofoam™ Brand Cladmate™ CM20 Insulation boards ensures exceptional long-term thermal performance and high moisture resistance. Sized to fit snugly between wall ties, Styrofoam™ Brand Cladmate™ CM20 Insulation is also easy to handle, cut and install, saving time and money on the job site.

Sustainable Solutions

Styrofoam™ Brand Cladmate™ CM20 Insulation is hydrochlorofluorocarbon (HCFC) free with zero ozone-depletion potential. Styrofoam™ Brand Cladmate™ CM20 Insulation is reusable in many applications and contains an average of 20% pre-consumer recycled content certified by UL Environment Inc.

Ease of Installation

Styrofoam™ Brand Cladmate™ CM20 Insulation is:

- Easy to handle, cut and install
- Available in several thicknesses with an R-value of 5.0 per inch
- Highly moisture resistant with 20 psi compressive strength
- Available in shiplap edge and butt edge (depending on board thickness)

Available Sizes

Product thicknesses and R-values are shown in Table 1. Not all products are available in all areas. Consult your DuPont representative about other sizes and lead time requirements.

TABLE 1: Sizes, R-values and Edge Treatments for Styrofoam™ Brand Cladmate™ CM20 Extruded Polystyrene Foam Insulation

Nominal Board Thickness ¹ (in.)	R-Value (RSI) ^{2,3}	Nominal Board Thickness ¹ (in.)	R-Value (RSI) ^{2,3}	Nominal Board Thickness ¹ (in.)	R-Value (RSI) ^{2,3}
2'x8' Ship-Lap (4-sided)		2'x8' Buttedge		4'x8' Ship-Lap (4-sided)	
0.75	R3.75 (0.66)	0.5	R2.5 (0.44)	0.8	R4 (0.70)
1.0	R5 (0.88)	1.0	R5 (0.88)	1.0	R5 (0.88)
1.5	R7.5 (1.32)	1.5	R7.5 (1.32)	1.5	R7.5 (1.32)
2.0	R10 (1.76)	2.0	R10 (1.76)	2.0	R10 (1.76)
2.4	R12 (2.113)	3.0	R15 (2.642)		
3.0	R15 (2.642)	4'x9' Ship-Lap (4-sided)		4'x9' Ship-Lap (2-sided)	
		1.0	R5 (0.88)	0.8	R4 (0.70)
4'x10' Ship-Lap (4-sided)		4'x10' Ship-Lap (2-sided)		1.0	R5 (0.88)
1.0	R5 (0.88)	1.0	R5 (0.88)	1.5	R7.5 (1.32)

¹ Not all products are available in all parts of the country. Contact your DuPont representative for more information. Not to be considered sales specifications.

² As per CAN/ULC S 701-11

³ R-values expressed in ft²·h²·°F/Btu.

PROPERTIES

Styrofoam™ Brand Cladmate™ CM20 Insulation exhibits the properties and characteristics indicated in Table 2 when tested as represented. Review all instructions and (Material) Safety Data Sheet ((M)SDS) 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™ Cladmate™ CM20 Insulation

Test Method	Property	Typical Value	Units
ASTM C518	Thermal Resistance per in. (25 mm) @ 75°F (24°C) mean temp.	5.0 (0.88)	ft ² ·h·°F/Btu (m ² ·°C/W), R-value (RSI) ¹ , min.
ASTM D1621	Compressive Strength ²	20 psi (140 kPa)	psi (kPa), min.
ASTM D2842	Water Absorption	0.7	% by volume, max.
ASTM E96	Water Vapor Permeance ³	1.5 (86)	perm (ng/Pa·s·m ²), max.
–	Maximum Use Temperature	165 (74)	°F (°C)
ASTM D696	Coefficient of Linear Thermal Expansion	3.5 x 10 ⁻⁵ (6.3 x 10 ⁻³)	in/in·°F (mm/m·°C)

¹ Values are consistent with criteria of CAN/ULC S 701-11

² Vertical compressive strength is measured at 10 percent deformation or yield, whichever occurs first.

³ Based on 1" (25 mm) thickness.

TESTING

Applicable Standards

Styrofoam™ Brand Cladmate™ CM20 Insulation meets CAN/ULC S 701 Type 3 – Standard for Thermal Insulation, Polystyrene, boards and pipe covering.

- **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
- **D 2842-06** – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- **C203** – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation

- **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
- **D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics

Notice

Styrofoam™ Brand Cladmate™ CM20 Insulation complies with the following codes:

- CAN/ULC S701-11 Type 3
- CCMC 11420-L

HANDLING

WARNING: For Professional Use Only. Read and follow the entire Safety, Handling, and Storage section and the Safety Data Sheets (SDSs, formerly MSDSs or Material Safety Data Sheets) carefully before use. The information below is designed to protect the user and allow for safe use and handling of DuPont products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- **Styrofoam™ Brand Cladmate™ CM20 Insulation** is combustible; protect from high heat sources. Local building codes may require a protective or thermal barrier.
- Prolonged exposure to ultraviolet radiation may cause the surface of **Styrofoam™ Brand Cladmate™ CM20 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 dust would impair the performance of adhesives and finishes, dusty surfaces should be brushed off before products are applied.

Shelf Life and Storage

When stored outdoors, keep insulation boards tarped or covered to protect from weather and weighted down to prevent boards from being blown around by the wind. Store above standing water.

Disposal

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



**For more information visit us at
styrofoam.com/cladmate
or call 1-866-583-2583**

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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 (Material) Safety Data Sheet ((M)SDS), 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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