Product Information Sheet

DuPont™ Thermax™ Sheathing

Nonstructural, Glass-Fiber-Infused Rigid Polyiso Insulation

FEATURES/BENEFITS

Description

DuPont™ Thermax™ Sheathing* is a non-structural, rigid board insulation consisting of a glass-fiber-infused polyisocyanurate foam core laminated between 1.0 mil smooth, reflective aluminum facers on both sides. The glass-fiber reinforcement contributes to improved fire performance and dimensional stability.

Thermax™ Sheathing also offers high, long-term thermal resistance, with facers that help prevent water and water vapor intrusion into the insulation foam allowing it to stabilize at a higher R-value*. In the USA, **Thermax™ Sheathing** can even be installed exposed to the interior without a thermal barrier. Used in conjunction with the appropriate joint closure system for the application, **Thermax™ Sheathing** – with its low perm rating – can help to reduce moisture condensation within and behind the insulation.

Ease of Installation

Thermax™ Sheathing:

- Eliminates the extra step of installing a membrane or building wrap
- Can be installed exposed to the interior without a thermal barrier (USA only)
- Contains UV-stable technology – can remain uncovered up to six months
- Reduces the potential for condensation within the wall assembly
- Is lightweight – easy to cut, handle and install

Available Sizes

Available sizes, R-values and edge treatments for **Thermax™ Sheathing** can be found in Table 1.

TABLE 1: Sizes(1), R-Values And Edge Treatments For Thermax™ Sheathing

Nominal Board Thickness (in.)		Thermal Properties		*Board Size Availability		Edge Treatment
US (in)	Canada (mm)	R-Value	Rsi	US (ft)	Canada (mm)	
0.50	*	3.3	0.58	4 x 8/4 x 12	1220 x 2440	Square Edge
0.75	*	5.0	0.88	4 x 8/4 x 12	1220 x 2440	Square Edge
1	*	6.5	1.14	4 x 8/4 x 12	1220 x 2440	Square Edge
1.5	*	9.8	1.73	4 x 8/4 x 12	1223 x 2440	Square Edge, Shiplap
1.55	39	10.1	1.78	4 x 8/4 x 12	1224 x 2440	Square Edge, Shiplap
2	51	13.0	2.29	4 x 8/4 x 12	1225 x 2440	Square Edge, Shiplap
2.5	64	15.8	2.78	4 x 8/4 x 12	1226 x 2440	Square Edge, Shiplap
3	76	18.6	3.28	4 x 8/4 x 12	1227 x 2440	Square Edge, Shiplap
3.5	89	21.3	3.75	4 x 8/4 x 12	1228 x 2440	Square Edge, Shiplap
4	102	24.0	4.22	4 x 8/4 x 12	1229 x 2440	Square Edge, Shiplap

Sustainable Solutions

Thermax™ Sheathing is manufactured from 100% renewable power and has a zero ozone depleting potential. The use of **Thermax™ Sheathing** helps reduce the carbon footprint of commercial buildings and can contribute to LEED Credits.

* Thermax™ Sheathing is a former product of The Dow Chemical Company.

PROPERTIES

DuPont™ Thermax™ Sheathing exhibits physical properties as 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 Thermax™ Sheathing

Properties	US (per ASTM C1289)		Canadian (per CAN/ULC S704)	
	Test Method	Values	Test Method	Values
Compressive strength	ASTM D1621	25 psi min	ASTM D1621	170 kPa
Flexural Strength	ASTM C203	40 psi min	ASTM C203	275 kPa min
Thermal resistance	ASTM C518	(see table)	ASTM C518	(see table)
Tensile strength.	ASTM D1623	24 psi min.	ASTM D1623	170 kPa min
Dimensional stability	ASTM D2126	0.2% max	ASTM D2126	0.2% max
Water absorption	ASTM C209	0.1 max	ASTM D2842	3.5 max
Water vapor transmission	ASTM E96	< 0.3 perm	ASTM E96	<15 ng/Pa-s-m^2
Surface Burning Characteristics[2], ASTM E84 for both foam core and finished product Flame Spread Smoke Developed		Class A 25 <450	CAN/ULC-S102	30

[1] Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.
[2] Calculated flammability values for this or any other material are not intended to represent hazards that may be present under actual fire conditions.

TESTING

Applicable Standards

Thermax™ Sheathing meets ASTM C1289 – Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board, Type I, Class 2 and CAN/ ULC S704-11. Applicable standards include:

- **C203** – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- **C209** – Standard Test Methods for Cellulosic Fiber Insulating Board
- **ASTM D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- **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
- **D2126** – Standard Test Method for Response of Rigid Cellular Plastics to Thermal and Humid Aging
- **E96** – Standard Test Method for Water Vapor Transmission of Materials
- **D1623** – Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics

Notice

Thermax™ Sheathing complies with the following codes:

- ASTM E2178 Standard Test Method for Air Permeance of Building Materials – leakage rates less than 0.001 L/s/m^2 at a test pressure of 75 Pa.
- ASTM E283 Standard Test Method for Determining Rate of Air Leakage through Exterior Windows, Curtain Walls, and Doors under specified Pressure differences across the specimen. Results were <0.02 L/s/m^2
- ASTM E2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies – no leakage
- ASTM E331 Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference – no leakage
- 2009 International Residential Code (IRC) Section 316
- 2009 International Building Code (IBC) Section 2603
- NBCC 9.25.2.2
- ICC-ES ESR-1659
- CAN/ULC S704-03/11
- CCMC listing 08433-L
- FM 4880 – Wall-Ceiling Construction Metal-Faced – Class 1 Fire Rated to Max. 30' Exposure High, 4.25" Thick, 4' Wide, When Installed as Described in the Current Edition of FMRC Approval Guide

- FM 4450 Approval Standard for Class 1 Insulated – Steel Deck Roofs
- Thermax™ products are covered under Underwriters Laboratories Inc. (UL) File R5622
- UL 1256 – Fire Test of Roof Deck Constructions, Roof Deck Construction No. 120 and No. 123
- Class A UL 723 (ASTM E84) Surface Burning Characteristics of Building Materials
- The following designs are 1, 2, 3 or 4 hour wall rated assemblies as listed in the UL Fire Resistance Directory: U026, U326, U330, U354, U355, U424, U425, U460, U902, U904, U905, U906, U907, V454, V482, V499
- Fire Performance Evaluation of an Exterior Masonry Wall System Incorporating Thermax™ Insulation Tested in Accordance With NFPA 285, 2006 Edition (UBC 26.9, intermediate scale – multistory testing)
- FMVSS No. 302 – Flammability of Interior Materials – Passenger Cars, Multipurpose Passenger Vehicles, Trucks and Buses (Docket No. 3-3; Notice 4)
- Miami-Dade NOA 16-0222.01 Interior Insulation on CMU Block

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

Warranty

In the USA a 15 year thermal warranty is available.
Visit building.dupont.com/warranties or contact your DuPont representative for details.

HANDLING

WARNING: For Professional Use Only – Read and follow the entire Handling 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 Thermax™ Brand products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- In Canadian construction, **Thermax™ Sheathing** exposed to the interior must be covered with a thermal barrier.
- Thermax™ Brand products should be used only in strict accordance with product application instructions.
- Thermax™ Brand products, when used in a building containing combustible materials, may contribute to the spread of fire. For more information, consult MSDS and/or call DuPont at 1-866-583-2583.

Disposal

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

For more information visit
thermaxwallsystem.com
or call 1-866-583-2583

NOTICE: No freedom from any patent owned by DuPont 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. The product shown in this literature may not be available for sale and/or available in all geographies where DuPont is represented. The claims made may not have been approved for use in all countries or regions. DuPont assumes no obligation or liability for the information in this document. References to "DuPont" or the "Company" mean the DuPont legal entity selling the products to Customer unless otherwise expressly noted. NO EXPRESS WARRANTIES ARE GIVEN EXCEPT FOR ANY APPLICABLE WRITTEN WARRANTIES SPECIFICALLY PROVIDED BY DUPONT. ALL IMPLIED WARRANTIES INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED. The buyer assumes all risks as to the use of the material. Buyer's exclusive remedy or any claim (including without limitations, negligence, strict liability, or tort) shall be limited to the refund of the purchase price of the material. Failure to strictly adhere to any recommended procedures shall release DuPont Specialty Products USA, LLC or its affiliates, of all liability with respect to the materials or the use thereof. The information herein is not intended for use by non-professional designers, applicators or other persons who do not purchase or utilize this product in the normal course of their business.

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.

DuPont™, the DuPont Oval Logo, and all trademarks and service marks denoted with ™, ℠ or ® are owned by affiliates of DuPont de Nemours, Inc. unless otherwise noted. © 2019 DuPont

43-D100094-enNA-0619 CDP