

# DuPont™ Thermax™ Metal Building Board NH Insulation

Non-Halogenated, Embossed Aluminum, Glass-Fiber Reinforced Polyiso Foam Insulation for Metal Buildings

## FEATURES/BENEFITS

### Description

DuPont™ Thermax™ Metal Building Board NH Insulation provides both insulation value and an interior finish system for walls in metal buildings. It consists of a polyisocyanurate foam core with 1.25 mil embossed aluminum facers on both sides and a Sound Transmission Classification (STC) of 15.

Thermax™ Metal Building Board NH 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. Used in conjunction with the appropriate joint closure system for the application, **Thermax™ Metal Building Board NH** – with its low perm rating – can help to reduce moisture condensation within and behind the insulation.

### Available Sizes

Sizes, R-values and edge treatment options for **Thermax™ Metal Building Board NH** can be found in Table 1. Contact your local sales representative for additional sizes.

### Ease of Installation

**Thermax™ Metal Building Board NH is:**

- Lightweight and easy to handle - can be sawed or cut with a knife, small hand saw or circular saw
- Easy to install quickly to walls (girts, steel stud, tilt-up, block, wood) and ceilings (inside and outside of purlins, trusses or bar joints)
- Can be installed exposed to the interior without a thermal barrier
- Helps reduce the potential for condensation within the wall assembly

### Sustainable Solutions

- **Thermax™ Metal Building Board NH** is manufactured with a zero ozone-depleting potential. The use of **Thermax™ Metal Building Board NH** helps reduce the carbon footprint of commercial buildings.
- **Thermax™ Metal Building Board NH** uses halogen-free flame retardants and is manufactured with zero ozone-depleting potential.

**TABLE 1: Sizes<sup>(1)</sup>, R-Values<sup>(2)(3)</sup> And Edge Treatments For Thermax™ Metal Building Board NH Insulation**

Nominal Board Thickness (in.)	R-Value	Board Size (ft.)	Edge Treatment
.5	3.6	4 x 8	Square Edge
.75	5.1	4 x 8	Square Edge
1.0	6.6	4 x 8	Square Edge
1.5	9.5	4 x 8	Square Edge, Shiplap
1.75	11	4 x 8	Square Edge
2.0	13	4 x 8	Shiplap
2.5	16	4 x 8	Square Edge, Shiplap
2.75	17	4 x 8	Square Edge
3.0	18.5	4 x 8	Square Edge, Shiplap

<sup>1</sup> Contact your DuPont seller for information at different R-values and other sizes and lead time requirements. Not all product sizes are available in all regions.

<sup>2</sup> R-value means resistance to heat flow. The higher the R-value the greater the insulating power. Stabilized R-value @75°F mean temperature determined in accordance with ASTM C518, R-values expressed in ft<sup>2</sup>·h·°F/Btu.

<sup>3</sup> Thermax™ Brand insulation has a higher R-Value at lower temperatures. At 40°F and 1" board thickness, R-Value is 7.1, and for 2" board thickness, R-Value is 12.2.

## PROPERTIES

DuPont™ Thermax™ Metal Building Board NH Insulation 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 1-833-338-7668 when additional guidance is required for writing specifications that include this product.

**TABLE 2: Physical Properties of Thermax™ Metal Building Board NH**

Property and Test Method	Value
Compressive Strength <sup>(1)</sup> , ASTM D1621, psi, min.	25
Flexural Strength, ASTM C203, psi, min.	40
Dimensional Stability <sup>(2)</sup> , ASTM D2126	0.4 max
Water Absorption, ASTM C209, % by volume, max.	0.1
Water Vapor Permeance, ASTM E96, perm, max.	0.02
Maximum Use Temperature, °F	250
Surface Burning Characteristics <sup>(3)</sup> , ASTM E84 for both foam core and finished product	Class A
Flame Spread	25
Smoke Developed	<450

<sup>1</sup> Vertical compressive strength is measured at 10 percent deformation or at yield, whichever occurs first.

<sup>2</sup> Length and Width.

<sup>3</sup> 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™ Metal Building Board NH meets ASTM C1289 – Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board, Type I, Class 2. Applicable standards include:

- **C203** – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- **C209** – Tensile Strength Perpendicular to Board Surface
- **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

### Notice

Thermax™ Metal Building Board NH complies with the following codes:

- CCRR 0440 Code Compliance Through Intertek
- AC 12 Compliance
- DRJ TER NO. 1506-03
- NFPA 268 - Standard Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source
- UL 1715 – Standard for Safety Fire Test of Interior Finish Material-Walls and/or Ceilings
- NFPA 286 – Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth-Walls or Ceilings
- 2021, 2018, 2015, 2012, 2009 International Building Code (IBC)
- 2021, 2018, 2015, 2012, 2009 International Residential Code (IRC)
- 2021, 2018, 2015, 2012, 2009 International Energy Conservation Code (IECC)
- 2021, 2018, 2015, 2012 International Green Construction Code (IGCC)
- 2019 California Green Standards Code

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

### Warranty

Twenty-year limited thermal warranty is available. Visit [building.dupont.com/warranties](http://building.dupont.com/warranties) or contact your DuPont representative for details.

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## 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

- Butt joints must be installed over structural members. The surface of the insulation at all joints must be continuously sealed with tape or with one of DuPont's joint closure systems.
- 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 1-833-338-7668.

### 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  
[building.dupont.com](http://building.dupont.com)  
or call 1-833-338-7668**

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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 1-833-338-7668 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.

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