Product Information Sheet

DuPont™ Thermax™ Basic NH

Non-Halogenated, High-Performance, Glass-Fiber Reinforced Polyiso Foam Insulation

FEATURES/BENEFITS

Description

DuPont™ Thermax™ Basic NH Insulation is a non-structural, rigid board insulation consisting of a glass-fiber-infused, closed-cell polyisocyanurate foam core laminated between 1.0 mil smooth reflective aluminum facers on both sides. As a result, **Thermax™ Basic NH** offers high, long term R-value[2] providing continuous, durable insulation within the building envelope.

Thermax™ Basic NH is specially designed to have a Class A fire rating and can be used in a range of concealed and exposed applications including use in exterior walls. It has the required flame-spread index of 25 or less and a smoke-developed index of 450 or less and has NFPA 285 tested assemblies that are approved for use per Section 2603.5 of the International Building Code in Exterior Walls of Types I, II, III, IV construction.

Ease of Installation

Thermax™ Basic NH Insulation are:

- Lightweight and easy to handle – can be sawed or cut with a knife, small hand saw or circular saw
- Quick to install – installs quickly to walls including girts, steel stud, tilt-up, block and wood
- Effective – high R-value can provide enhanced thermal efficiency; facers help reduce air penetration and water vapor intrusion.
- Durable – Class A fire rating allows them to be used in a range of concealed and exposed applications with enhanced job-site durability; less damage and job-site waste

Available Sizes

Thermax™ Basic NH is available in 4'x 8' dimensions up to a maximum thickness of 3.0". Full sizing information can be found in Table 1.

Sustainable Solutions

- **Thermax™ Basic NH** can be used for continuous insulation to assist in meeting and exceeding both the most current IECC and ASHRAE 90.1 energy standards.
- **Thermax™ Basic NH** uses halogen-free flame retardants and is manufactured with zero ozone-depleting potential.
- The use of **Thermax™ Basic NH** helps reduce the carbon footprint of commercial buildings by reducing the energy consumed to maintain comfort.

TABLE 1: Sizes, R-values and Edge Treatments for Thermax™ Basic NH Insulation

Nominal Board Thickness[1], in.	R-value [3]	Board Size, FT	Edge Treatment
1.0	6.6	4 x 8	Square Edge
1.5	9.5	4 x 8	Square Edge
1.55	10	4 x 8	Square Edge
2.0	13	4 x 8	Square Edge
3.0	18.5	4 x 8	Square Edge

[1] 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.
[2] R means resistance to heat flow. The higher the R-value, the greater the insulating power. Stabilized R-values @ 75°F mean temperature determined in accordance with ASTM C518. R-values expressed in $ft^2 \cdot h \cdot °F/Btu$.
[3] An additional 2.77 R-value may be added to the system R-value, when a minimum 3/4" ideal air space and horizontal heat flow are present in accordance with the ASHRAE Fundamentals Handbook on FTC, 16 CFR Part 460.

PROPERTIES

DuPont™ Thermax™ Basic 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: Typical Physical Properties of Thermax™ Basic NH Insulation

Property and Test Method	Value
Compressive Strength[1], ASTM D1621, psi, aim	25
Flexural Strength, ASTM C203, psi, min.	40
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[3], ASTM E84 for both Foam Core and Finished Product Flame Spread Smoke Developed	 Class A 25 <450

[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™ Basic 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™ Basic NH complies with the following code and tests verified by third party entities:

- ASTM E2178 Standard Test Method for Air Permeance of Building Materials – leakage rates less than 0.0001 L/s/m^2 at a test pressure of 75 Pa.
- 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
- NFPA 285 compliant when installed as part of exterior wall assemblies in CCRR 0440 or valid engineering judgement reports
- 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

In the USA, a 15-year limited 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 DuPont™ products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- Butt joints must be installed over structural members. "Best practices" recommends continuously sealing the board joints with a DuPont joint closure system.
- 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.
- CAUTION: DuPont™ Thermax™ Basic NH Insulation are combustible and when used in a building containing combustible materials, may contribute to the spread of fire. This product shall only be used as specified by the local building code with respect to flame spread classification and to the use of a suitable thermal barrier.

Thermax™ Basic NH should be used only in strict accordance with product application instructions. For more information, consult (M)SDS and/or call DuPont at 1-833-338-7668.

Disposal

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

For more information visit
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 call the DuPont Contact Center at 866-583-2583 or contact your local building inspector. For emergencies contact Chemtrec 800-424-9300, CCN (Contract Number) 7442.

WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

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