Paratherm® NH CG Polyiso Insulation

Flat TCPP-Free Polyiso with CGF Facers

Description:

Paratherm® NH CG Polyiso Insulation board is made of durable inorganic coated glass fiber facers (CGF) bonded to a core of TCPP-Free Non-halogenated polyisocyanurate foam.

Paratherm® NH CG Polyiso Insulation offers high thermal performance, moisture and mold resistance for commercial roofing applications requiring a sustainable solution.

Features and Benefits:

- **Paratherm® NH CG Polyiso Insulation is TCPP-Free, using a non halogenated flame retardant and is Red List Free**
- **Maintains the same R-value when tested according to ASTM C1289 standard using the C518 test method at both a mean temperature of 40° F (4.4°C) and 75° F (24° C)**
- Meets the requirements of ASTM D3273 for resistance to mold growth §
- Achieves an ANSI/UL 790 Class A roofing fire resistance rating as a component of UL Classified roofing assemblies over combustible deck without the use of a gypsum board or slip sheet when installed at a minimum 3" (75 mm) thickness.
- UL 790 Class B roofing fire resistance rating when installed at a minimum thickness of 1.5" (38 mm). Refer to UL Product iQ for specific assemblies
- Higher R-value per inch than other insulations such as EPS, XPS and Mineral Wool
- Easy to install — lightweight, easy to cut, easy to handle

System Approvals:

- Approved component in commercial roof systems, mechanically attached and adhered
- Refer to the applicable Siplast Technical Guide for detailed application information



- Recommended for Cold Storage applications or buildings requiring additional moisture resistance.

Panel Characteristics:

- Available in a variety of thicknesses: 1.0" (25.4mm) to 4.6" (116 mm)
- Available in a variety of sizes:
  4' x 4' (1.22 m x 1.22 m) boards
  4' x 8' (1.22 m x 2.44 m) boards

Codes & Compliance:

- Meets the requirements of ASTM C1289 Type II, Class 2, Grade 2 (20 psi), and also available Grade 3 (25 psi)
- FM Approved — refer to RoofNav.com for approved assemblies
- Classified by UL in accordance with ANSI/UL 1256 and 790. Refer to UL Product iQ for specific assemblies
- UL Evaluation Report UL ER1306-03
- Miami-Dade County Product Control Approved
- State of Florida Approved

FM APPROVED · CLASSIFIED UL · PIMA QualityMark Independent / Certified / LTTR + · MIAMI-DADE COUNTY APPROVED



Sustainability:

- Can contribute towards sustainable certifications under a green building rating system such as LEED V4, or Living Building Challenges.
- Manufactured using CFC-, HCFC- and HFC-free foam blowing technology with zero ozone depletion potential (ODP) and virtually no (negligible) global warming potential (GWP).
- Potential LEED® Credits for Polyiso Use Health Product Declaration (HPD)
- Living Building Challenge Red List approved
- UL GreenGuard Gold
- Environmental Product Declaration (EPD)
- Where sold compliant with State HFC regulations. More information available at www.polyiso.org.

Declare. · GREENGUARD GOLD · TCPP FREE

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Typical Physical Property Data:

Property	Test Method	Value
Compressive Strength	ASTM D1621	Grade 2 – 20 psi min (138 kPa) Grade 3 – 25 psi min (172 kPa)
Dimensional Stability Change (length + width) †	ASTM D2126	< 2% linear change
Flexural Strength	ASTM C203	40 psi min (275 kPa)
Tensile Strength	ASTM C209	500 psf min (24 kPa)
Water Absorption (percent by volume)	ASTM C209	1.5% max
Water Vapor Permeance	ASTM E96, Procedure A	1.5 perm max (85.8 ng/Pa•s•m^2)
Service Temperature		-100° F to 250° F (-73.3° C to 121.1° C)
Flame Spread Index ‡	ASTM E84	< 75*
Smoke Developed Index	ASTM E84	< 200*
Resistance to Mold §	ASTM D3273	Pass (10)

* Foam Core

† Stated dimensional stability tolerance: thickness shall not diminish by more than 4% max.

‡ These numerical ratings are not intended to reflect hazards presented by these or any other material under actual fire conditions.

§ Siplast warranties and guarantees do not provide coverage against mold or other biological growth. Refer to siplast.com for more information on warranty and guarantee coverage and restrictions.

Paratherm™ NH CG Polyiso Insulation Thermal Values:

Size**	R-Value††	Max Flute Span (in)
1.0" (25.4 mm)	5.7	2 5/8" (66.7 mm)
1.2" (30.5 mm)	6.8	2 5/8" (66.7 mm)
1.5" (38.1 mm)	8.6	4 3/8" (111 mm)
1.75" (44.5 mm)	10.0	4 3/8" (111 mm)
2.0" (51 mm)	11.4	4 3/8" (111 mm)
2.2" (59 mm)	12.6	4 3/8" (111 mm)
2.3" (58 mm)	13.2	4 3/8" (111 mm)
2.5" (64 mm)	14.4	4 3/8" (111 mm)
2.6" (66 mm)	15.0	4 3/8" (111 mm)
2.8" (71 mm)	16.2	4 3/8" (111 mm)
3.0" (76 mm)	17.4	4 3/8" (111 mm)
3.2" (81 mm)	18.6	4 3/8" (111 mm)
3.5" (89 mm)	20.5	4 3/8" (111 mm)
3.7" (94 mm)	21.7	4 3/8" (111 mm)
4.0" (102 mm)	23.6	4 3/8" (111 mm)
4.3" (109 mm)	25.4	4 3/8" (111 mm)
4.5" (114 mm)	26.6	4 3/8" (111 mm)
4.6" (116 mm)	27.1	4 3/8" (111 mm)

** Other thicknesses available upon request.

†† Long Term Thermal Resistance Values provide a 15-year time weighted average in accordance with CAN/ULC 770. For optimal roof performance and to prevent thermal bridging Siplast recommends installing multiple layers of Polyiso with staggered joints.

Warnings and Limitations:

- Paratherm® NH CG Polyiso Insulation is a non-structural, non load-bearing material. It is not designed for direct traffic usage unless adequately protected.
- As unprotected polyisocyanurate will burn, fire safety precautions should be observed wherever insulation products are used.
- Direct torching of modified bitumen roofing to Paratherm® NH CG Polyiso Insulation will present a fire hazard. A properly installed fiberglass base sheet or gypsum cover board MUST be used over the insulation.
- Refer to the application specifications in the current membrane manufacturer's application and specifications manual for proper installation procedures.
- Material delivery should be carefully coordinated with the schedule for roofing operations to minimize job site storage time. Upon delivery, remove the factory packaging or slit on all four sides and cover pallets with a breathable, waterproof covering to allow for ventilation and to prevent the accumulation of condensation. Whenever possible, store pallets over finished surfaces rather than on dirt or grass to avoid upward transpiration of moisture and the accumulation of condensate. Consider interior storage offering dry, well-ventilated conditions when the Paratherm™ NH CG Polyiso is to be stored for more than 14 days prior to installation.

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