

Paratherm® Barrier

Flat Polyiso with CGF Facers for Combustible Decks

Description:

Paratherm® Barrier Polyiso Insulation is made of durable coated glass fiber facers (CGF) bonded to a core of polyisocyanurate foam.

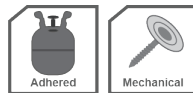
Paratherm® Barrier Polyiso Insulation offers high thermal performance for commercial roofing applications over a combustible deck.

Features and Benefits:

- Paratherm® Barrier Polyiso Insulation achieves an ANSI/UL 790 Class A roofing fire resistance rating as a component of UL Classified roofing assemblies over combustible decks with minimum 0.5" (12.7 mm) board thickness. Refer to UL Product iQ for specific assemblies
- Meets the requirements of D3273 for resistance to mold growth*
- Versatile — Approved component in single-ply, BUR, and modified bitumen systems, with a variety of attachment methods: mechanically attached, fully adhered, loose laid, and ballasted
- High insulation value — Polyiso insulation has the highest R-value per inch compared to any other type of non-polyiso insulation of equivalent thickness
- Because of its light weight, this material is easy to handle on the job site and installs quickly. Easy cutting in the field provides the installer with simplified fabricating on the roof deck

System Approvals

- Approved component in commercial roof systems, mechanically attached and adhered
- Recommended for Multi-Family applications with wood decks
- Refer to the applicable Siplast Technical Guide for detailed application information



Panel Characteristics:

- Available in a variety of thicknesses from 0.5" (12.7 mm) to 4.6" (116 mm)
- Available in 4' x 4' (1.22 m x 1.22 m) and 4' x 8' (1.22 m x 2.44 m) boards
- Other Paratherm® products available — tapered, GRF facer, and non-halogenated. See individual data sheets for more information

Codes & Compliance:

- Meets the requirements of ASTM C1289, Type II, Class 2, Grade 2 (20 psi), and also available in Grade 3 (25 psi)
- State of Florida Approved
- Classified by UL in accordance with ANSI/UL 790 and 1256. Refer to UL Product iQ for specific assemblies



Paratherm® Barrier Polyiso Thermal Values:

Size†	R-Value‡	Max Flute Span (in)
0.5" (12.7 mm)	2.9	2 5/8" (66.7 mm)
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)

*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.

† 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 two layers of Polyiso with staggered joints.

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Sustainability:

- Manufactured with EPA-compliant blowing agents containing no CFCs or HCFCs; has zero ozone depletion potential (ODP) and negligible global warming potential (GWP)
- GREENGUARD Gold
- Potential LEED Credits for Polyiso Use
- Environmental Product Declaration (EPD)



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)

*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.

[‡] Foam Core

[§] 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.

Warnings and Limitations:

- Paratherm® Barrier 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® Barrier Polyiso Insulation will present a fire hazard and is not recommended. A properly installed ply sheet or approved 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 accumulation of condensate. Consider interior storage offering dry, well-ventilated conditions when the Paratherm® Barrier Polyiso Insulation is to be stored for more than 14 days prior to installation.