PARATHERM® BARRIER POLYISOCYANURATE

Commercial Product Data Sheet

Paratherm[®] Barrier is a rigid roof insulation board comprised of a closed cell polyisocyanurate foam core bonded on each side to an inorganic coated fiberglass facer, and achieves an ANSI UL790 Class A fire resistance rating over combustible wood decks with a $\frac{1}{2}$ " board thickness.

Contact Siplast for information on approved product uses.

USES: RIGID INSULATION

Standards	ASTM C1289 Type II Class 3, Grade 2 (20 psi) & Grade 3 (25 psi)
Panel Dimensions	4 ft x 8 ft (1.22 m x 2.43 m) 4 ft x 4 ft (1.22 m x 1.22m)
Thickness	1 in – 4 in (2.54 cm - 10.16 cm)

PRODUCT INFORMATION

Application

Refer to the applicable Siplast Technical Guide for detailed application information.



For optimal thermal and roof system performance, Siplast recommends using multiple layers of polyisocyanurate with staggered joints.

Storage and Handling

Material should be carefully coordinated with the schedule for roofing operations to minimize job site storage time. Upon delivery, the factory packaging should be removed or slit on all four sides to allow for ventilation and to prevent the accumulation of condensation. Interior storage offering dry, well-ventilated conditions should be considered when the product is to be stored for more than 14 days prior to installation. When short-term job site storage is necessary, Paratherm should be stored flat on raised pallets or platforms at least 4 inches above the ground. Pallets should be stored on a finished surface rather than on dirt or grass to avoid upward transpiration of moisture. Pallets should be covered with a breathable, waterproof covering in all cases.

See product packaging and the Safety Data Sheet for specific information on the safe handling of this product.

Packaging

Factory packaging includes plastic wrap, plastic bag, or both.

Listings, Approvals, & Certifications



Current copies of all Siplast Commercial Product Data Sheets & Safety Data Sheets are posted on our website at www.siplast.com Rev Date 3/2023

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Physical and Mechanical Properties

Property (As Manufactured)	Value/Units	Test Method	
Compressive Strength*	Grade 2 (20 psi), min. Grade 3 (25 psi), min.	ASTM D1621	
Dimensional Stability**	< 2%, max.	ASTM D2126	
Tensile Strength	\ge 500 psi (24 kPA), min.	ASTM D1623	
Flexural Strength	40 psi (275 kPA), min.	ASTM C203	
Water Absorption	< 1.5%, max.	ASTM C209	
Service Temperature	-100° - 250°F (-73.3° - 121.2°C)	N/A	
Moisture Vapor Transmission	< 1.5 perm, max.	ASTM E96 (Procedure A)	
Flame Spread Index	< 75***	ASTM E84 / UL 723	
Smoke Developed Index	< 200**	ASTM E84 / UL 723	
Resistance to Mold****	Pass	ASTM D3273	
* Foam core.			

** Stated dimensional stability tolerance: Board thickness shall not diminish by more than 2% max.

*** This numerical rating is not intended to reflect hazards presented by these or any other material under actual fire conditions.

**** Siplast guarantees do not provide coverage against mold or other biological growth.

TYPICAL PHYSICAL & MECHANICAL PROPERTY DATA			
Nominal Thickness	R-Value*	Flute Span (max.)	
1.0 in (25 mm)	5.7	2-5/8" (66.7 mm)	
1.2 in (30 mm)	6.8	2-5/8" (66.7 mm)	
1.5 in (38 mm)	8.6	4-3/8" (111 mm)	
1.75 in (46 mm)	10.0	4-3/8" (111 mm)	
2.0 in (51 mm)	11.4	4-3/8" (111 mm)	
2.3 in (58 mm)	13.2	4-3/8" (111 mm)	
2.5 in (64 mm)	14.4	4-3/8" (111 mm)	
2.6 in (66 mm)	15.0	4-3/8" (111 mm)	
2.8 in (71 mm)	16.2	4-3/8" (111 mm)	
The following are not recommended for use in a single layer application.			
3.0 in (76 mm)	17.4	4-3/8" (111 mm)	
3.2 in (81 mm)	18.6	4-3/8" (111 mm)	
3.5 in (89 mm)	20.5	4-3/8" (111 mm)	
3.7 in (94 mm)	21.7	4-3/8" (111 mm)	
3.8 in (97 mm)	22.3	4-3/8" (111 mm)	
4.0 in (102 mm)	23.6	4-3/8" (111 mm)	
* Long-Term Thermal Resistance Values (LTTR) provide a 15-year, time weighted average in accordance with CAN/ULC-S770. Information on other thicknesses available upon request.			

Contact Siplast for typical physical and mechanical property data for panels not listed in the chart above.