

IB® Energy Board II

Product Description:

IB Energy Board II (by Atlas AC Foam II or Hunter Panels H-Shield) is a closed-cell polyisocyanurate foam core integrally bonded to non-asphaltic, fiber-reinforced organic felt facers. IB Energy Board II is a product that offers Long-Term-Thermal-Resistance (LTTR) values from 5.7 to 23.6 and is available in 4' x 4' and 4' x 8' panels.

Packaging:

IB Energy Board II is shrink-wrapped and job site delivered.

Features:

- Manufactured using CFC-, HCFC- and HFC- free foam blowing technology
- Excellent LTTR to thickness ratio
- Sustainable Building Material
- Zero Ozone Depletion Potential (ODP)
- Virtually no Global Warming Potential (GWP)*
- Reduces cooling and heating loss transmission through roofing assemblies
- Covered component under the IB Total Systems Warranty
- Can be used for mechanically attached, induction attached, fully adhered, or ballasted roof assemblies

Application:

IB Energy Board II can be installed over approved substrates. Refer to IB Specifications and Construction Details for additional installation instructions.

Multi-Layer Installation:

Improved insulation thermal performance and a reduction of thermal bridging can be obtained by the installation of two or more layers with all joints offset. Avoid continuous vertical joints on all multi-layer applications by staggering and offsetting the joints of each layer from those of preceding layers.

Approvals:

- ASTM C1289, Type II, Class 1, Grade 2 (20 psi) or Grade 3 (25 psi)
- UL Standard 1256 Classification Construction No. 120, 123 & 292
- UL Standard 790 (ASTM E108) Roofing Systems Classification
- UL Standard 263 (ASTM E119) Fire Resistance Classification
- UL Standard 1897 Uplift Resistance
- CAN/ULC-S704, Type 2, Class 3 or Type 3, Class 3
- CCMC No. 12464-L
- FM Standard 4450/4470 Approved
- UL Certified for Canada – Insulated Roof Deck Assemblies Construction No. C38 and 52. Meet CAN/ULC-S126, CAN/ULC-S101 and CAN/ULC-S107
- GWP of IB Energy Board II is negligible and is considered zero (0) by the U.S. EPA.



Thickness	Avg. LTTR	Flute Span	Weight lb/sf	Recycled Content		
				Post	Pre	Total
1.0"	5.7	2.6"	.245	33.7%	19.2%	52.9%
1.5"	8.6	4.3"	.313	26.4%	18.2%	44.6%
1.6"	9.1	4.3"	.326	25.3%	18.0%	43.3%
1.8"	10.3	4.3"	.353	23.4%	17.8%	41.1%
2.0"	11.4	4.3"	.380	21.7%	17.5%	39.2%
2.3"	13.2	4.3"	.412	19.6%	17.2%	36.8%
2.5"	14.4	4.3"	.448	18.4%	17.1%	35.5%
2.6"	15.0	4.3"	.461	17.9%	17.0%	34.9%
2.7"	15.6	4.3"	.475	17.4%	16.9%	34.3%
*3.0"	17.4	4.3"	.515	16.0%	16.7%	32.7%
*3.5"	20.5	4.3"	.583	14.2%	16.5%	30.6%
*4.0"	23.6	4.3"	.650	12.7%	16.3%	28.9%

*LTTR (long term thermal resistance) values were determined in accordance with CAN/ULC-S770-09. Test samples were third-party selected and tested by an accredited material testing laboratory. The LTTR results were reviewed by FM Global and certified by the PIMA Quality Mark Program.

*To minimize the effects of thermal bridging, IB recommends the use of multiple layers when the total desired or specified R-value requires an insulation thickness greater than 2.7" thick.

Typical Physical Properties*

Property	Test Method	Result
Dimensional Stability	ASTM D2126	< 2%
Compressive Strength	ASTM D1621	20 psi or 25 psi
Water Absorption	ASTM C209 & D2842	< 1.5%, < 335%
Water Vapor Transmission	ASTM E96	< 1.5 perm
Product Density	ASTM D1622	Nominal 2.0 pcf
Flame Spread	ASTM E84 (10 min.)	140-60
Smoke Development	ASTM E84 (10 min.)	150-170
Tensile Strength	ASTM D6123	> 730 psf
Service Temperature		-100° to +250°F

*Numerical ratings are not intended to reflect performance under actual fire conditions. Flame spread index of ≤ 75 and smoke development ≤ 450 meet code requirements for foam plastic roof insulation. Codes exempt foam plastic insulation when used in FM 4450 or UL 1256.

* Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.