## Technical Data Sheet

## IB® Energy Board III

# Product Description:

IB Energy Board III (by Atlas AC Foam II or Hunter Panels H-Shield) is a closed-cell polyisocyanurate foam core integrally bonded to inorganic coated glass facers. IB Energy Board III 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 III 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:**

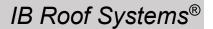
IB Energy Board III can be installed over approved substrates. Refer to IB Specifications and Construction Details for additional installation instructions.

### **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 2, 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	¹Avg.	Flute	Weight	Recycle	Recycled Content	
	LTTR	Span	lb/sf	Post	Pre	Total
1.0"	5.7	2.6"	.315	-	6.2%	6.2%
1.5"	8.6	4.3"	.383	-	7.7%	7.7%
1.6"	9.1	4.3"	.396	-	7.9%	7.9%
1.8"	10.3	4.3"	.423	-	8.3%	8.3%
2.0"	11.4	4.3"	.450	-	8.7%	8.7%
2.3"	13.2	4.3"	.490	-	9.2%	9.2%
2.5"	14.4	4.3"	.518	-	9.4%	9.4%
2.6"	15.0	4.3"	.531	-	9.6%	9.6%
2.7"	15.6	4.3"	.545	-	9.7%	9.7%
*3.0"	17.4	4.3"	.585	-	10.0%	10.0%
*3.5"	20.5	4.3"	.653	-	10.5%	10.5%
*4.0"	23.6	4.3"	.720	-	10.9%	10.9%

"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	< 4.0 perm			
Product Density	ASTM D1622	Nominal 2.0 pcf			
Flame Spread	ASTM E84 (10 min.)	<sup>1</sup> 40-60			
Smoke Development	ASTM E84 (10 min.)	<sup>1</sup> 50-170			
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.

<sup>\*</sup> Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.