Ener-Air™

BUILDING ENVELOPE INSULATION

IKO.COM/COMM

- Multi-Purpose Sheathing
- Vapour-Permeable
- Controls Sound
- Component of the 3-IN-1 WRB System

An energy efficient, vapour-permeable, noise reducing wall insulation board with outstanding R-value.

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Ener-Air is a vapour-permeable, nonstructural rigid polyisocyanurate insulation sheathing board with high thermal resistance properties. Constructed from closed cell polyisocyanurate foam core which is bonded on each side to a coated glass fiber mat facer.

Performance as a Sheathing

- **Polyiso has the highest R-value per inch** of any rigid foam board insulation. Increased thermal resistance improves wall energy efficiency performance.
- **Effective strategy to reduce initial construction costs.** The higher thermal values per inch of Ener-Air insulation sheathing means that it requires less space than other less efficient insulation to deliver the same level of performance.
- **Controls sound.** Ener-Air reduces noise, adding quiet comfort to the building enclosure. Ener-Air has been tested to deliver world class STC qualities.
- **Non-emissive odour tested.** Ener-Air has passed testing for odour, assuring building occupants that industry standards are met.
- **User-friendly.** Coated glass fiber facers on both sides of the sheathing provide moderate abuse-resistance on the job site. Ener-Air is lightweight & easy to cut, thus reducing labour costs on site. Stud and fastener line indicators improve accuracy of installation.
- **Provides versatility.** Coated glass fiber facers provide the long term moisture resistance necessary for various wall applications. The facers are also compatible with most solvent-based materials.
- **Has a uniform thickness** for consistently maintaining air space requirements in wall applications.
- **Available in 4 ft x 8 ft and 4 ft x 9 ft boards** in 12 mm (0.5 in), 16 mm (0.625 in), 18 mm (0.75 in), 25 mm (1.0 in), 38 mm (1.5 in), and 50 mm (2.0 in) thicknesses. Other sizes are available upon request as a special order.
- **Can be pre-cut** at our factory to the size you need with IKO AccuCut™ service.[1]
- **Ener-Air can work as a Weather-Resistive Barrier (WRB) for exterior walls.** When detailed with IKO AquaBarrier VP Tapes, the Ener-Air system can be a code compliant, vapour-permeable WRB assembly thus providing three major design features - insulation, weather resistive air barrier and sound reduction all at once. This eliminates the need for a building wrap and an air barrier.

Storage

- It is recommended that Ener-Air be stored indoors.
- When outdoor storage of insulation is unavoidable, the insulation must be stacked on pallets a minimum of 50 mm (2 in) above ground level and covered with a waterproof tarp.
- The insulation manufacturer's packaging is not considered waterproof and shall be slit, as recommended by the manufacturer, to reduce condensation inside the packaging.

[1] **Please refer to "IKO AccuCut™ Guide" for more information on this service.**

Codes & Compliances

ASTM E84			
Flame Spread Index < 75 Smoke Density Index < 450			
CAN/ULC S102			
Flame Spread Index (Canada) < 55			
ASTM C1289	CAN/ULC S704	ASTM E2357[2]	CAN/ULC S742
Type 2 Class 1 Grade 1	Type 1 Class 3	Pass	Class A1

[2] When joints & penetrations detailed using AquaBarrier Tapes according to IKO specifications.

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APPLICATIONS

Consult your local building code for requirements pertaining to air barriers, vapour retarders, joint treatment and strapping. Use and application of this product must be in accordance with all local, provincial and national building code requirements.

No special personal protective equipment is required to install Ener-Air, but good work practices and local safety officials may dictate the use of gloves, safety glasses, and other safety equipment.

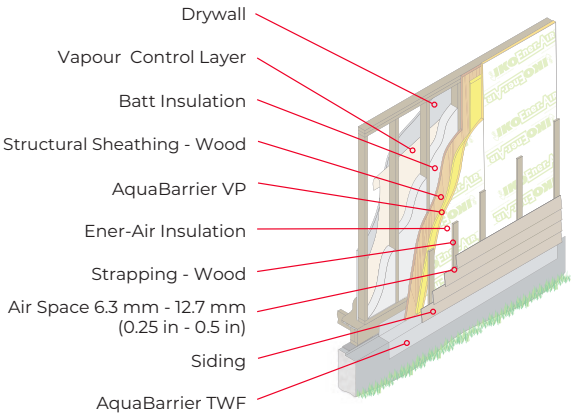
Ener-Air should not be used on the exterior below grade where it is subject to water infiltration. See IKO Enerfoil & Ener-Air and IKO AquaBarrier Application Guides at: **IKO.COM/COMM** for further application details.

NOTE: In order to reduce exposure to the elements, it is important to apply the exterior veneer over Ener-Air as soon as practical, following its installation. If it will be left exposed for more than 30 days, keep a protective covering over the sheathing to protect it from environmental damage.

FOR NEW / RETROFIT CONSTRUCTION[3]

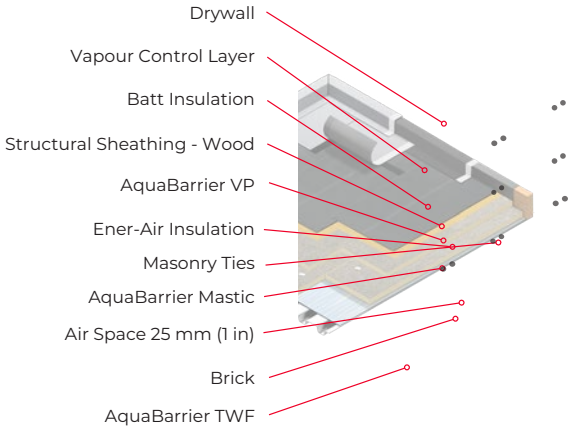
Cladding with Strapping Attachment

For wood or metal framed assemblies, corner bracing is recommended at corners and around large openings. The framing must be structurally reinforced with either cross bracing or structural sheathing. Fasten Ener-Air to wood studs with washered nails. Ensure that the fastener penetrates a minimum of 19 mm (3/4 in) into the framing. Fasten Ener-Air to steel studs using mechanical fasteners and washers.



Cladding with Masonry Ties

Fasten Ener-Air to wood studs with washered nails. Ensure that the fastener penetrates a minimum of 19 mm (3/4 in) into the framing. Fasten Ener-Air to steel studs using mechanical fasteners and washers.



[3]**Please refer to "IKO Insulation Fastener Guide" for further information.** Note: These illustrations show wood stud framing and sheathing, but other types of framing and sheathing may be used. When using an IKO approved mastic, use in a well ventilated area. Avoid breathing vapour. Recommended to wear solvent resistant gloves and NIOSH approved respirator. Drawings are for illustration purposes only. Consult your design professional.

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ACCESSORY PRODUCTS

AquaBarrier VP

- IKO AquaBarrier VP is vapour permeable, mold resistant, primerless, and easy to install.
- Diffuses vapour - allows wall assembly to dry and provides drainage plane.
- Permeability quality helps to improve breathable wall assembly performance.
- Fully adheres to substrates without using primer.
- Meets highest industry standards for commercial air and weather barriers.

AquaBarrier™ VP Primerless Self-Adhering Vapour-Permeable Flashing Tapes

- Intended for applications in specialized detailed areas such as windows, doors, skylights, metal cladding systems, and under siding at inside and outside corners.
- Available in 30.5 m (100 ft) rolls in widths of 4 in, 6 in, 9 in, 12 in and 18 in.

Ener-Air Insulation - Typical Physical Properties[4]

CHARACTERISTICS	UNITS	NOMINAL VALUE		TEST METHOD	
Compressive Strength:	kPa (psi)	>140 (>20)		ASTM D1621	
Tensile Strength:	kPa (psi)	>24 (>3.48)		ASTM D1623	
Flexural Strength MD/XD:	kPa (psi)	607 / 497 (88 / 72)		ASTM C203	
Water Absorption:	% Vol./Vol.	3.5		ASTM C209	
Dimensional Stability @ 70°C MD/XD:	%	±2 / ±2		ASTM D2126	
R-Value – Initial[2] and LTTR		Initial R-Value	LTTR R-Value	Initial R-Value	LTTR R-Value
12 mm (0.5 in): 18 mm (0.75 in): 25 mm (1.0 in): 38 mm (1.5 in): 50 mm (2.0 in):	Btu/h·ft²·°F	3.2 4.7 6.3 9.5 12.6	2.8 4.2 5.7 8.5 11.4	ASTM C518	CAN/ULC S770
Water Vapour Transmission Rate (WVTR):	ng/Pa·s·m² (perms)	>60 (>1)		ASTM E96 (Method B)	
Air Permeability @ 75 pa:	L/s·m²	<0.02		ASTM E2178	
Air Leakage:	L/s·m²	Class A1		CAN/ULC S742 -11 ASTM E2357 - 11[1]	
Flame Spread:	–	<55 <75		CAN/ULC-S102 ASTM E84	
Smoke Developed:	–	<500 <450		CAN/ULC-S102 ASTM E84	
Service Temperature:	°C (°F)	-40 to 100 (-40 to 212)		—	
Width Tolerance:	mm (in)	±4.0 (±0.16)		ASTM C303	
Length Tolerance:	mm (in)	±2.0 (±0.08)		ASTM C303	
Sound Transmission Class (STC):	–	14 - 15		ASTM E90 (09)	
Odour Emission:	–	Pass		ASTM C1304 (08)-2013	

[4]The information on this sheet is based on data considered to be true and accurate based on periodic internal testing and production measurements at time of manufacture. The information is offered solely for the user's consideration, investigation and verification. [5]Stated thermal resistance values are based upon conditioning requirements and test methodology found in ASTM C1289 and ASTM C518. [6]When joints and penetrations detailed appropriately. See also Material Safety Data Sheet – MSDS #1511 or MSDS #1911. Nothing contained herein constitutes or represents a warranty or guarantee for which the manufacturer can be held legally responsible. Please refer to Product Data Sheets for more technical information.

Find out more about our roofing, waterproofing and insulation products now by talking to an IKO Sales Representative, your professional contractor or contact us directly at: **Canada 1-855-IKO-ROOF (1-855-456-7663), United States 1-888-IKO-ROOF (1-888-456-7663) or visit our website at: IKO.COM/COMM.**

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