Ener-Air™

BUILDING ENVELOPE

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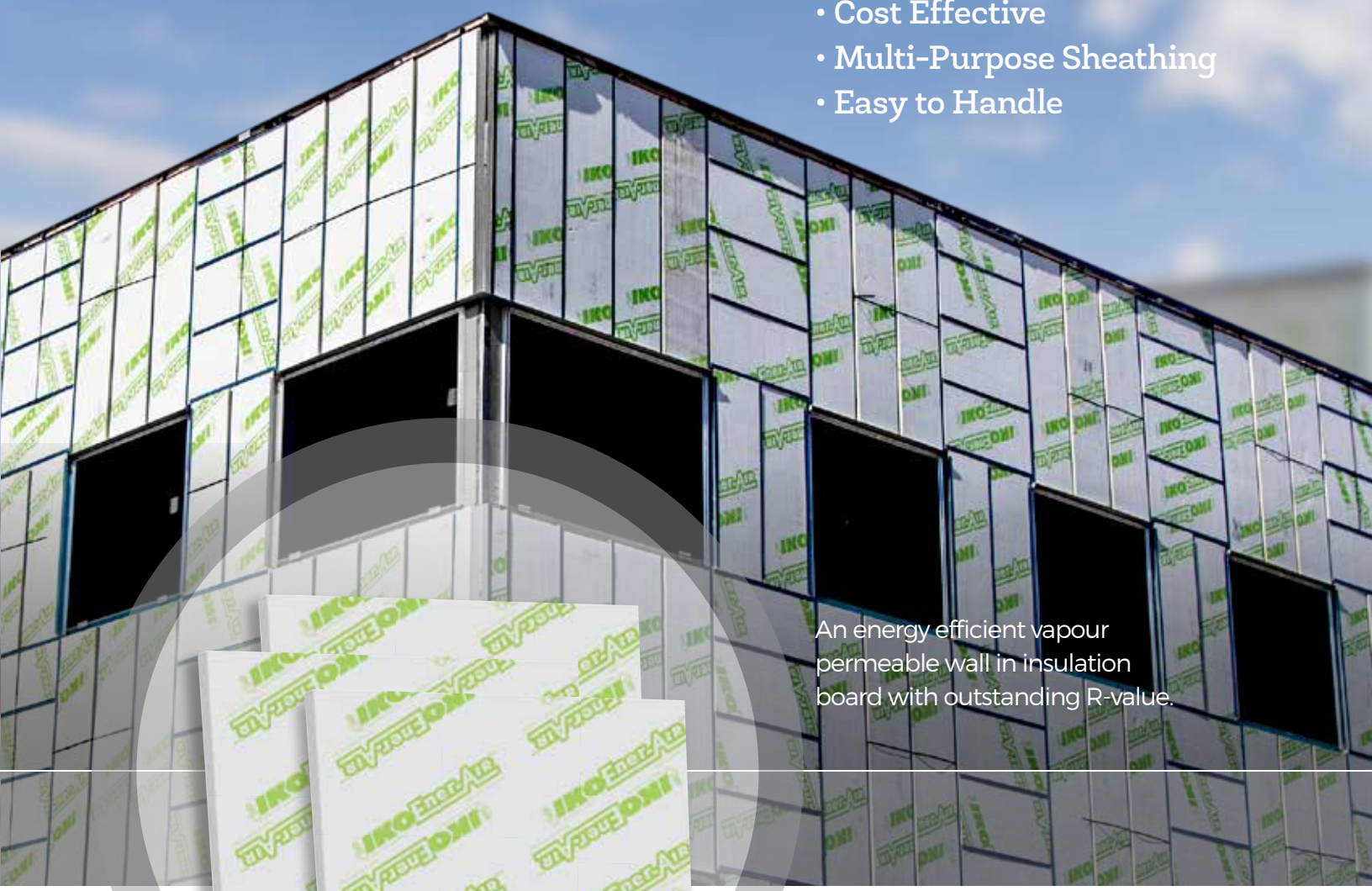
- Reinforced
- Cost Effective
- Multi-Purpose Sheathing
- Easy to Handle



An energy efficient vapour permeable wall in insulation board with outstanding R-value.

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A breathable, rigid, polyisocyanurate foam insulation sheathing with high thermal properties. Constructed from closed cell polyisocyanurate foam core bonded on each seide to coated glass fiber facers during the manufacturing process.

Performance as a Sheating

- Provides high thermal resistance of R6 per inch (RSI 1.05 per 25 mm) for improved energy efficient performance of walls.
- Helps decrease the cost of construction. Designers can reduce the overall footprint of their buildings, as a smaller thickness of Ener-Air achieves the same R-value (RSI) as other thicker types of insulation.
- Environmentally friendly. HCFC's are not used in the manufacture of Ener-Air making it an ideal "Green" product. Ener-Air's Energy Star® certification means that it clearly contributes to reducing energy consumption. Can also contribute to points under LEED, EnerGuide and other energy efficiency rating programs.
- User-friendly. Coated glass facers on both sides of the sheathing provide moderate abuse-resistance on the job site. Ener-Air is lightweight & easy to cut, thus reducing labor costs on site.
- Provides versatility. Coated glass fiber facings provide the long term moisture resistance necessary for cavity wall applications. The facings are also compatible with solvent-based materials, which can attack and compromise the performance of other thermoplastic insulations.
- Has a uniform thickness for consistently maintaining air space requirements in cavity wall applications.
- Available in 4' x 8' boards in a variety of thicknesses including 19mm (.75"), 25mm (1"), 38mm (1.5") and 51mm (2.0").
- Ener-Air is a superior insulating product and works as an air barrier as well. When suitably detailed the Ener-Air system can be a code-compliant air barrier assembly. Thus fulfilling two jobs at once.

Storage

- It is recommended that Ener-Air be stored indoors.
- When outdoor storage of insulation is unavoidable, the insulation shall be stacked on pallets a minimum of two inches (2") (50 mm) 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.
- Keep on a level surface, elevated at least two inches (2") (50 mm) above ground.

ISO 9001 – 2008 REGISTERED FACILITY

Note: Ener-Air should not be used below grade where it is subject to water infiltration. †USA only.

Codes & Compliances		
ASTM 1289	CAN/ULC S704-03	CAN/ULC S102
Type II, Class 2	Type 1, Class 3	Flame Spread ≤ 350 Smoke Density Index ≤ 225

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Applications

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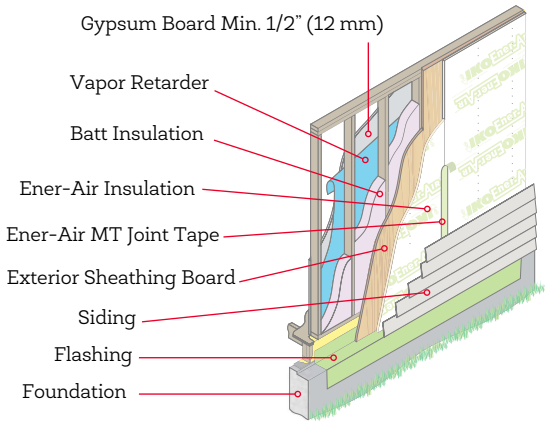
Consult your local Building Code for requirements pertaining to air barriers, vapor retarders, joint treatment and strapping. Use and application of this product must be in accordance with all local, provincial and national building code requirements.

See applications instructions for further details on application.

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 60 days, keep a protective covering over the sheathing. Proper structural requirements can be met by bracing or exterior sheathing.

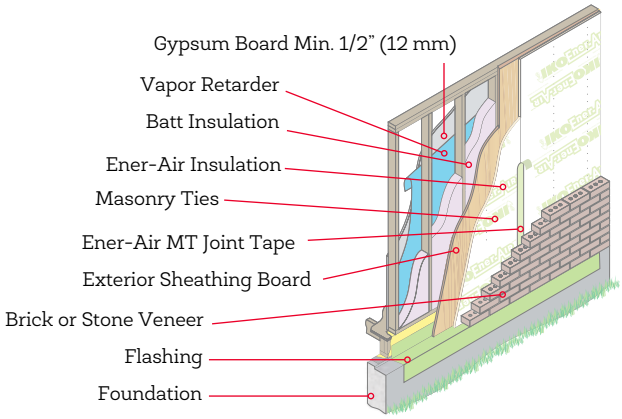
Frame Construction Siding

For wood framing, corner bracing is recommended at corners and around large openings. Ener-Air is fastened to the studs using washered nails. Ensure that the fastener penetrates a minimum of 3/4" (19 mm) into the framing. Steel stud walls have Ener-Air fastened to the studs using mechanical fasteners with metal washers. Sheathing is installed with fasteners spaced 2" (300 mm) o.c. in the flat, 8" (203 mm) o.c. around the perimeter.



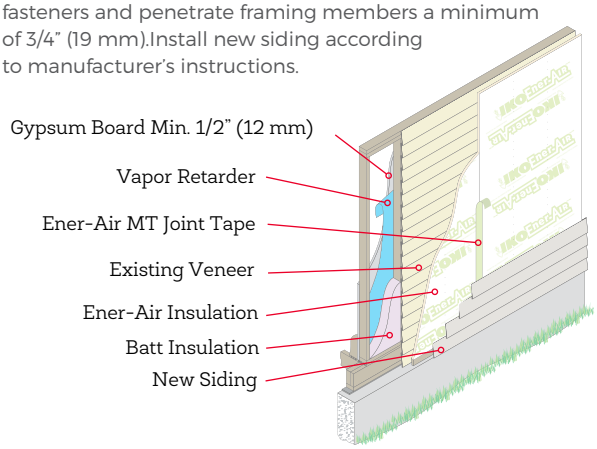
Frame Construction Brick Veneer

For wood framing Ener-Air is fastened to the studs using washered nails. Ensure that the fastener penetrates a minimum of 3/4" (19 mm) into the framing. Steel stud walls have Ener-Air fastened to the studs using mechanical fasteners with metal washers. Sheathing is installed with fasteners spaced 12" (300 mm) o.c. in the flat, 8" (203 mm) o.c. around the perimeter. Approved masonry ties must be spaced and installed as per masonry requirements. Install low expanding foam to create tight seal at small [<4" ^{2}(102 mm ^{2})] penetrations through the exterior envelope and irregularities at wall intersections. Maintain air space requirements.



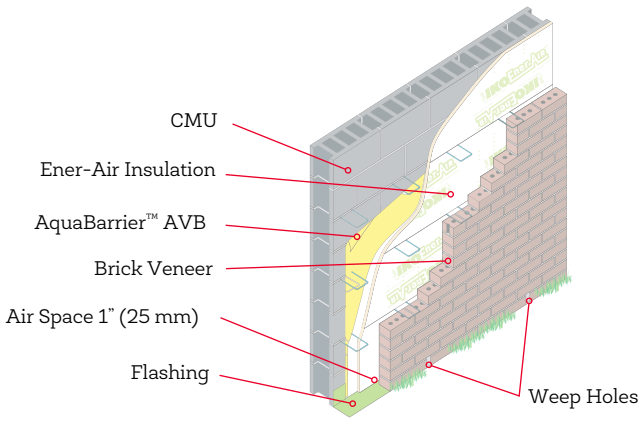
Retrofit Application

Corrective action should be taken where evidence of moisture-related problems exist. This may include the replacement or repair of framing members, increased ventilation or installation of a vapor retarder. Install Ener-Air vertically and butt all edges. Secure boards with washered fasteners and penetrate framing members a minimum of 3/4" (19 mm).Install new siding according to manufacturer's instructions.



Block Wall Construction

Ener-Air is attached against block wall using construction-grade adhesive compatible with air/vapor barrier. Boards are cut to friction fit between Building Code approved masonry ties.



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Accessory Products

IKO S.A.M. Adhesive
- Dries to a high tack, providing excellent adhesion properties during the application process on vertical or horizontal surfaces.
- Suitable for use on most substrates including wood, glass mat, gypsum core sheathing, masonry, concrete and metal. Also available in Low VOC.

MS Detail
- Used to condition substrates prior to the application of self-adhering membranes.
- Dries to a high tack, providing excellent adhesion properties.
- Easy application. Just mix and roll apply.
- Easy clean-up with mineral spirits.
- Compatible will all IKO Self-adhering Membranes

AquaBarrier Mastic
- IKO AquaBarrier Mastic is a unique, modified asphalt sealant that is formulated with synthetic rubbers for longevity, and glass fibers for extra strength.
- It can be applied in temperatures from 10˚F (- 12˚C) to 122 ˚F (50˚C) on damp or dry surfaces and will not slump or pull away from the substrate.

Ener-Air Insulation - Typical Physical Properties

CHARACTERISTICS	UNITS	TYPICAL VALUE	SPECIFICATIONS	TEST METHOD	STANDARD LIMITS
Length Tolerance	in. (mm)	± 0.16 (± 4)	CAN/ULC-S704	ASTM C303	+ 0.25 (+ 6) / - 0.16 (- 4)
Width Tolerance		± 0.08 (± 2)			+ 0.16 (+ 4) / - 0.08 (- 2)
Dimensional Stability (MD/XD) @ 70˚C, 97% R.H.	%	< 2		ASTM D2126	MAX: ± 2
Water Vapour Permeance	ng/Pa·s·m²	≥ 60		ASTM E96	> 60
Water Absorption	% by Vol.	< 1.0		ASTM D2842	MAX: 3.5
Compressive Strength	kPa (psi)	124 (18)		ASTM D1621	MIN: 110 (16)
Thermal Resistance Value* Thickness: 0.75 in. (19 mm) 1.0 in. (25 mm) 1.5 in. (38 mm) 2.0 in. (51 mm)	Btu·hr·ft²·˚F (RSI)	0.77 in. (4.5 mm) 1.05 in. (6.0 mm) 1.58 in. (9.0 mm) 2.10 in. (12.0 mm)		CAN/ULC - S770	—
Service Temperature	˚F (˚C)	-40 to 212 / (-40 to 100)	—	—	—
Flame Spread Index Smoke Density Index	—	≤ 350 ≤ 225	—	CAN/ULC - S102	—
AirBarrier (@75Pa) Unconditioned	L/s.m²	<0.0005	CAN/ULC S741	ASTM E2178	<0.02
AirBarrier (@75Pa) Conditioned					Does not increase by more than 0.001

* Stated thermal resistance values are based upon conditioning requirements and test methodology found in ULC S-704 and CAN/ULC S770 for polyisocyanurate insulation. As a conservative estimate for long-term thermal resistance design value, R6 (RSI 1.05) per inch thickness is typically used.

Find out more about our 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: **www.iko.com**.

Note: *The information in this document is subject to change without notice. IKO assumes no responsibility for errors that may appear in this document.*

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