



## **Commercial Air Barrier Systems**

The industry's most complete offering of air barrier systems for commercial construction

## **One chance** to get it right

- $\checkmark$  Keeping up with changing building codes
- $\checkmark$  Meeting increasingly strict environmental regulations
- ✓ Protecting against mould
- ✓ Satisfying growing demands for energy efficiency
- $\checkmark$  Accommodating extreme weather shifts

With challenges like these, designing effective air barrier systems has never been more complex, as the design and construction community bring to life tomorrow's commercial buildings.

In this pressure-filled world, you want a partner you can trust to deliver the expertise and solutions you need to get it right from the start. That is why today's architects, building envelope consultants and contractors are turning to Henry<sup>®</sup> Company to guide them to trusted, high-performance Building Envelope Systems<sup>®</sup> solutions.



# One company to count on

Henry<sup>®</sup> is one of the only companies in the industry to offer a complete line of Building Envelope Systems® including roofing, air barrier and waterproofing systems. Our complete portfolio provides you with the ultimate in both performance and design flexibility.

- Mitigate moisture infiltration

#### A complete portfolio

#### An airtight reputation

A pioneer in the building industry with roots dating back to the 1930's, Henry<sup>®</sup> helped revolutionize commercial construction with the introduction of air barriers. Delivering dependable performance, Henry<sup>®</sup> commercial air barrier systems help:

- Eliminate uncontrolled air leakage
- Reduce energy consumption
- Provide control of air quality in structures, resulting
- in improved comfort and peace of mind

Let us use our building envelope expertise to help you find the right air barrier system for your needs.

## **Optimize performance: Select the right air barrier**

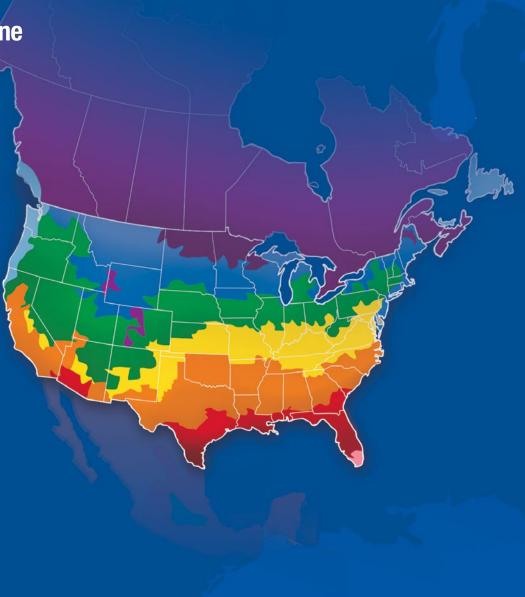
The first step to optimizing air barrier performance is choosing the right system to meet your project needs. In order for your air barrier system – and your building – to meet performance expectations, you will need to factor climate zone and wall assembly design into your decision.

<sup>44</sup>The architect or building designer is responsible for making judgements about what materials to use and how to use them. However, close collaboration with the WRB manufacturer is extremely important to help the architect select the optimum product and installation details given the specific factors at play in their project.<sup>33</sup>

#### Know your climate zone

You must first determine the climate zone in which the air barrier system will need to function, as each zone poses unique challenges. Climate zones are categorized as:

- Climate zone 1
- Climate zone 2
- Climate zone 3 Warm - humid/dry/marine
- Climate zone 4 Mixed - humid/dry
- Climate zone 4 marine
- Climate zone 5
- Climate zone 6
- Climate zone 7 & 8



This map is meant to serve as a representation of the climate zones outlined by ASHRAE. This map was not created or provided by ASHRAE.

#### **Consider wall assembly design**

With a variety of air barrier products designed to enhance indoor comfort in all climates, you will also have to factor wall assembly design into your decision. Important aspects of wall assembly design to consider include:

- Building performance requirements
- Substrate to which the air barrier will be applied
- Location of insulation
- Complex geometries and rough surfaces
- Avoiding condensation in the wall assembly



John Straube, Ph.D. Principal for RDH Building Science Inc.

#### **Additional considerations**

Both climate and wall design will play a role in deciding between a vapour impermeable or vapour permeable air barrier.

**Vapour impermeable air barriers** act as air, vapour and water barriers. When positioned on the warm side of the insulating layer, they serve as an efficient vapour barrier, preventing moisture condensation through the wall cavity.

Vapour permeable air barriers act as air and water barriers as well, but allow moisture vapour to escape. They typically can be positioned anywhere in the wall assembly for greater design flexibility.

Once you have selected between vapour impermeable and vapour permeable, you will need to determine if a self-adhered sheet or fluid applied system is right for your project.

The experts at Henry<sup>®</sup> can help you navigate the many decisions involved in selecting the optimal air barrier solution.

## **Count on Henry**<sup>®</sup> air barrier systems

Air barrier membranes from Henry<sup>®</sup> are available in two main types: self-adhered sheet and fluid applied. While both may perform the same function equally well, you will need to consider the pros and cons of each type based on your project needs. You will also need to select the appropriate primer, flashing and sealant accessories to create an effective building envelope system that meets your building performance requirements.

#### Advantages of self-adhered sheet air barriers:

- Manufacturer-controlled thickness of membrane
- No mixing or special installation equipment needed
- Easily bridges gaps

#### Advantages of fluid applied air barriers:

- Provide a seamless, monolithic, durable membrane
- Excellent for complex geometries and rough surfaces
- Easily seal around penetrations

All Henry<sup>®</sup> air barrier systems are third-party tested to meet codes and demands for durability and sustainability:

Air permeance: Low air permeance per ASTM E2178, ASTM E2357, CAN/ULC S741 and CAN/ULC S742.

Self-gasketing: Meet ASTM D1970 and AAMA 711 for sealing around fasteners, eliminating water penetration even after the exterior facade is installed.

Wall assembly fire test: One of the industry's broadest lines of commercial air barriers that pass as part of various wall assemblies per NFPA 285.

Sustainable and environmental design benefits: Contribute to sustainable design, energy efficiency and LEED credits by utilizing durable, low-VOC air barriers. Health Product Declarations are available for transparency.

Durability: Meet CAN/ULC S741 and S742 test standards to ensure long-term durability.

### Blueskin<sup>®</sup> self-adhered sheet air barriers: a consistent plane of protection

Introduced by Henry<sup>®</sup> over 30 years ago – and providing trusted performance ever since – self-adhered Henry<sup>®</sup> Blueskin<sup>®</sup> air barriers create a continuous membrane upon installation.

- Vapour impermeable and vapour permeable options available
- Precise manufacturing controls the thickness to help ensure uniform performance
- Available in a variety of roll widths makes for easy handling on site
- Installation is guick and easy

### **Air-Bloc<sup>®</sup> fluid applied air barriers:** seamless protection to keep walls dry

With a range of vapour impermeable and vapour permeable options, Air-Bloc<sup>®</sup> fluid applied air barriers accommodate every climate and substrate for greater flexibility depending on your project needs.

- Low VOC formulations allow compliance with environmental regulations
- Available as single component, with UV stability for permanent exposure
- Apply with standard industry spray equipment, roller or trowel over a wide temperature range
- Available with antimicrobial agents to defend against mould and mildew

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### Henry<sup>®</sup> commercial air barrier systems selection chart

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Vapour permeable	•	ŕ	•	<b>*</b>	•	V	V	×	V		•			<b>v</b>	V	~ •		•	•
Vapour impermeable		•		•		•	•	•	•			•	•	•	•	•	•	•	
Permanent UV exposure Under open joint cladding	•							•	•							•			
Low application temperature Lower than 4 °C (40 °F)	•	•	•	•	•1		•1				•	•	•		• <sup>1</sup>		•	•	•
Low VOC <sup>2</sup> 100 g limit	•	•	•		n/a	n/a	n/a	n/a	n/a		•	n/a	n/a	n/a	n/a	n/a		•	
Self-gasketing	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	
Mould resistant	•	•	•		n/a	n/a	n/a		n/a		•	n/a	n/a	n/a	n/a	n/a			

Primer required
VOC regulations do not apply to articles such as sheet applied membranes and flashings. VOCs are only measured in certain liquid products.
Passes AAMA 714-19. Can also be used as a liquid flashing when Air-Bloc All Weather STPE is the primary air barrier membrane. See Installation Manual and Technical Data Sheet for application details.

Air permeance and durability: Low air permeance per ASTM E2178 and ASTM E2357. Meet CAN/ULC S741 and S742 air permeance and long-term durability standards.



#### Self-gasketing:

Meet ASTM D1970 and AAMA 711 for sealing around fasteners, eliminating water penetration even after the exterior facade is installed.



#### Sustainable and environmental design benefits:

Contribute to sustainable design, energy efficiency and LEED credits, by utilizing durable, low-VOC air barriers. Health Product Declarations and Red List status information are available for transparency.

#### Consult updated Technical Data Sheet for most recent information

Henry, Blueskin, Air-Bloc, Foilskin and Kop-R-Lastic are registered trademarks of the Henry Company.

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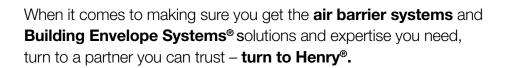
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# **Total protection** is our mission

#### Henry<sup>®</sup> Building Envelope Systems<sup>®</sup>

For over 80 years, Henry® products and systems have helped manage the flow of water, air, vapour, and energy through the building envelope. From foundation to roof, our solutions improve the energy efficiency, livability and sustainability of commercial and residential structures, for the benefit of the owner, occupant and the environment.

Most importantly, our experience has confirmed that the building envelope needs to be viewed as a holistic system – from roof to wall to foundation - offering a last line of defense from the elements. Today, our Building Envelope Systems® include an entire portfolio of interrelated solutions to help you meet the challenges you face.





Designing a durable waterproofing system from the start is essential to protecting your foundation and various deck applications. Once the building is complete, the opportunity to integrate an optimized waterproofing system into the building envelope is lost. Henry<sup>®</sup> provides proven, comprehensive waterproofing solutions that keep the structure dry and protect it from damage due to water infiltration.

#### **Air Barrier Systems**

Designing air barrier systems for today's structures has never been more challenging. A designer has to balance air leakage, water resistance, vapour management, thermal controls and fire resistance, all while keeping an eye on the budget. Henry® Building Envelope Systems<sup>®</sup> include an entire portfolio of air barrier solutions to help you meet your goals.

From providing durable, watertight performance, to managing storm water run-off and offering outdoor green spaces, Henry® roofing systems are designed to meet the challenges of these evolving trends. Inverted roof membrane assemblies, including vegetative roof assemblies and solutions for plaza decks, along with conventional roofing solutions for low-slope and flat roof applications help provide years of reliable service to building owners and occupants.

All Henry<sup>®</sup> Building Envelope Systems<sup>®</sup> are backed by comprehensive warranties.

#### Waterproofing Systems

#### **Roofing Systems**



Roofing | Air Barrier | Waterproofing

Ask us today about other Henry<sup>®</sup> solutions that help manage the flow of water, air, vapour and energy.