

**MEMBRAIN**  
Continuous Air Barrier & Smart Vapor Retarder

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# MEMBRAIN™

*Continuous Air Barrier & Smart Vapor Retarder*

Create an **Energy-Efficient Home** that is **Smarter** and **Healthier**

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**CertainTeed**  
SAINT-GOBAIN

# Air tightness is rapidly becoming central to new building codes. It affects all aspects of building envelope performance.

Indoor air quality, energy efficiency, acoustics, comfort and managing moisture within the wall cavity can all be seriously compromised if a house is not airtight.

## Tougher Codes Are Here

The new Canadian energy codes are here. These codes restrict the number of air changes in a structure per hour and call for use of vapour barriers in mixed climates. However, as the air tightness of a home increases, there's yet another new challenge. The same continuous seal that keeps air leakage out of the home could be trapping harmful moisture in the cavity.

## Greater Air Tightness = Greater Moisture Challenges

In "mixed-climate" parts of the country, where homes heat in the winter and cool in the summer, homes using traditional polyethylene vapor retarders may actually trap moisture in the cavity during the summer – raising the risk of costly moisture and mold issues, structural damage, health consequences and liability.

### ACHIEVING COMPLETE COMFORT

When your insulation system successfully controls these four aspects, you can achieve a higher level of Complete Comfort in your home.

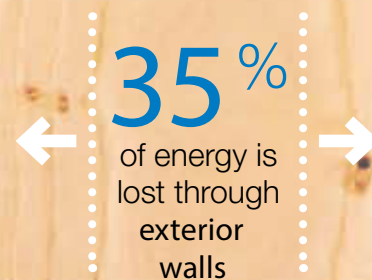


25%

of energy is lost through the roof

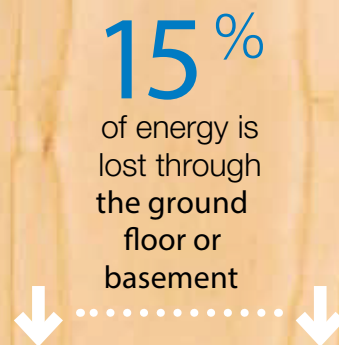
## Leaking Out Energy

A tremendous amount of energy is lost through poor air sealing, increasing home energy costs. MemBrain™ helps mitigate these expenses by creating a continuous, airtight seal along the interior of the building envelope.\*



35%

of energy is lost through exterior walls



15%


of energy is lost through the ground floor or basement

[www.greenhomegnome.com/energy-loss-homes-insulation/](http://www.greenhomegnome.com/energy-loss-homes-insulation/)

\* When installed properly with standard tape and sealing practices, MemBrain helps form a continuous barrier that enhances air tightness, improving overall comfort.

Source: *The Case for Energy Efficiency in Buildings* (Saint-Gobain, 2010), pg. 7.

# CertainTeed's exclusive MemBrain Continuous Air Barrier and Smart Vapour Barrier is the industry's most advanced technology to create a better performing home.

This patented, revolutionary solution can provide a continuous air barrier along with advanced moisture management in a single product, helping achieve Complete Comfort. It's another reason why choosing CertainTeed means you're installing much more than trusted high-performance insulation products. You're installing confidence. 



- Continuous indoor air barrier\* creates a better performing building envelope
- Dynamic performance and permeance rating compared to traditional kraft insulation or polyethylene sheeting
- Senses and adapts permeance to varying humidity throughout the year to keep the cavity dry
- Prevents moisture vapor from entering the wall cavity in the winter
- Allows any moisture buildup to escape the cavity in the summer
- When installed with standard tape and sealing practices, creates an air barrier that has been tested under stringent performance guidelines

\* When installed with standard tape and sealing practices, MemBrain forms a continuous air barrier system that enhances air tightness and improves overall comfort. For full MemBrain air barrier install instructions, view 30-28-127.

# Consequences of a leaky home.

## AIR SEALING = SAVING MONEY

“ You can save up to 30% of your energy costs by air sealing multiple points of your home where energy losses occur. ”

Residential Energy Services<sup>1</sup>

Air tightness affects the entire building envelope. A leaky home can not only lead to unpleasant drafts, it can compromise overall comfort.

- Conditioned air is lost, reducing energy efficiency and raising bills
- Outdoor pollutants more easily enter the building, compromising indoor air quality (IAQ)
- Allows moisture that travels in the air to enter the building
- Moisture intrusion can affect insulation, compromising R-value
- Outside noise intrusion is worsened

The average Canadian family spends \$1,900 a year on home utility bills. Heating and cooling your home accounts for the largest portion, 54%, of utility bills. Air sealing your home can help reduce these costs.

{ **\$500+**  
average yearly savings with air sealing

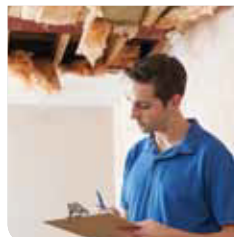
## Once airtight, homes face greater moisture challenges.

Air tightness without proper moisture management can eliminate moisture's escape path, trapping it within the home's walls, like other non-permeable building materials (OSB, foam board, etc.). The hidden consequences of this moisture buildup could include loss of thermal efficiency, along with potential mold and rot issues. MemBrain's patented smart vapor retarder technology — an exclusive CertainTeed patented technology — helps avoid these problems with the superior moisture management needed in an airtight envelope.

### Moisture in the Cavity Leads to Mold and Rot



Moisture buildup can lead to mold growth, which can cause health issues.



Persistent moisture can eventually cause expensive structural damage.

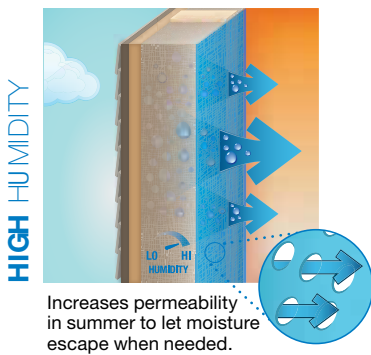
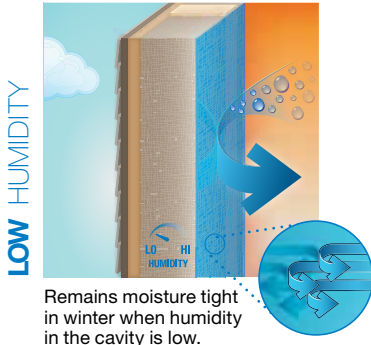
<sup>1</sup> <http://www.resnet.us/library/why-air-sealing-is-important/> <sup>2</sup> <http://www.greenhomegnome.com/energy-loss-homes-insulation/>

# MEMBRAIN™

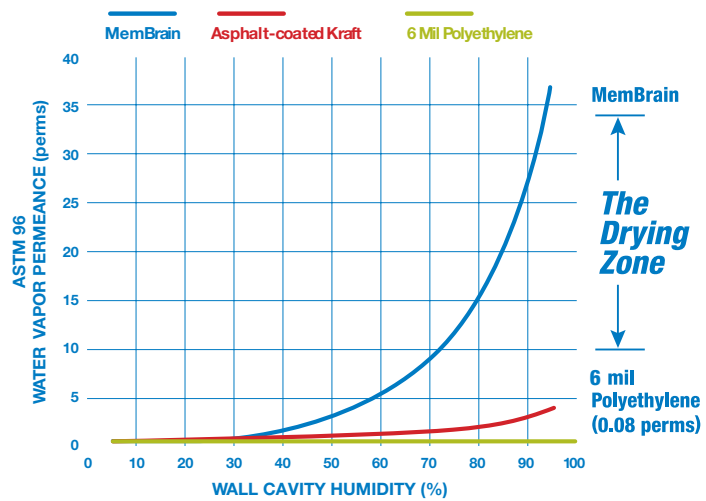
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## MoistureSense™ Technology



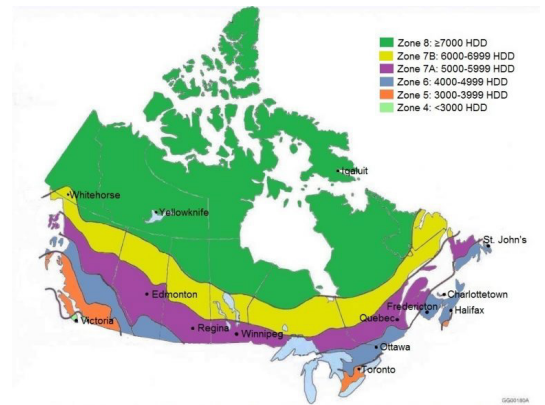
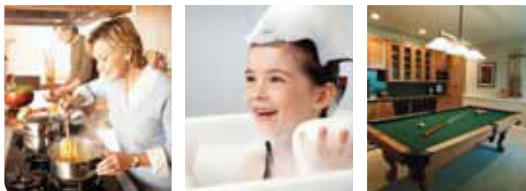
MemBrain can adapt from fully closed to open (<1 to 35 perms) to provide greater drying capability.



## Where to Use MemBrain

MemBrain is ideal for any area where the home cools in the summer and heats in the winter.\*

- Ceilings
- Crawlspace
- Basements
- Bathrooms
- Laundry Rooms
- Kitchens
- Exterior Walls



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Meets Class A fire retarder specifications, ASTM E84, for flame spread.

Meets Canadian Construction Materials Centre (CCMC) 13278-R Vapor & Air Barrier Performance.



Proven performance backed by more than a decade of usage data worldwide.

For every insulation challenge, there's a CertainTeed solution.



Residential Sustainable Insulation



CertaPro™ Commercial Insulation



Machine Works



Air and Moisture Management



Spray Foam Insulation



HVAC / Mechanical



Premium Blow-in Insulation



# [ Be Certain ]™

You can **Be Certain™** no other manufacturer offers the depth and breadth of interior and exterior building solutions, knowledge, innovation and sustainability that CertainTeed does. Our advanced, multi-product solutions optimize building efficiency, while creating beautiful, comfortable environments where people can thrive. We continue to shape the future of the building materials industry with a new generation of integrated building solutions.

**That's confidence worth building on.™**

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