

# Complete Comfort

INTEGRATED SOLUTIONS FOR  
EVERY INSULATION NEED



**CertainTeed**  
SAINT-GOBAIN



# The CertainTeed Difference

Kraft Faced Fiberglass Batt

Moisture Management Fiberglass Batt

Unfaced Fiberglass Batt & Smart Vapor Retarder

Blown-In Insulation System



## No one matches CertainTeed's breadth of insulation options

When you choose CertainTeed Insulation, part of the largest insulation manufacturer in the world, you're installing much more than trusted high-performance insulation products. You're installing confidence.

With more than 100 years of experience, we have a comprehensive offering to help you achieve optimal comfort, with fiberglass Sustainable Insulation®, blowing wool, smart vapor retarders, air barriers and mold protection. You can Be Certain our variety of products, multi-product solutions and Building Science expertise will help you create better living spaces.

# Create a More Comfortable Home

Your insulation choice impacts thermal performance as well as moisture management, air tightness and acoustics. It's important to choose wisely during a home's construction, as upgrading later can be difficult and expensive. When your insulation system successfully controls all of the following aspects, you can achieve a higher level of Complete Comfort in your home.

**Thermal  
Performance**



**Air  
Tightness**



**Moisture  
Management**



**Acoustics**



**Complete  
Comfort**



## Thermal Performance

Highly efficient fiberglass insulation helps save on energy bills\* and creates more comfortable living spaces.



## Air Tightness

Sealing air leaks stops unpleasant drafts and noise, while helping ensure thermal performance. It creates a tighter building envelope that impacts every other aspect of a comfortable home.



## Moisture Management

An effective vapor retarder can help reduce the risk of mold and mildew, improving indoor air quality, providing a healthier indoor environment and helping avoid potential damage from rot.



## Acoustics

Acoustics play an important role in a home's overall comfort. Insulation helps block disturbing outside noise and, when added to interior walls, limits room-to-room noise.



\* For more information go to [www.energystar.gov](http://www.energystar.gov)

# Understanding Building Science



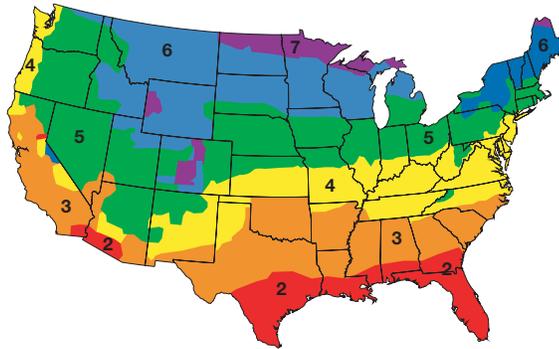
## Thermal Performance

### MIXED-CLIMATE REGIONS,

which experience both significant hot and cold seasons, have unique insulating and moisture management needs. Since heat and moisture will pass through the cavities in both directions throughout the year, homes in these regions can benefit from CertainTeed's advanced smart vapor technologies, including SMARTBATT™ with MoistureSense™ Technology insulation and MemBrain™ continuous air barrier and smart vapor retarder.

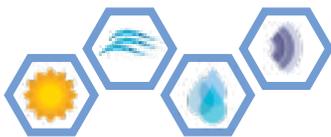
Heat constantly moves to colder areas, which is why homes need thermal resistance (measured by R-Value) between the indoors and outdoors. **The higher the R-Value, the greater the insulating power.\***

### KNOW YOUR CLIMATE ZONE



**It's critical to determine the recommended R-Value according to your region.**

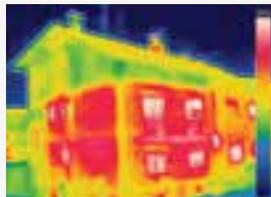
However, code is a recommended minimum. Upgrading beyond these minimums creates a more comfortable home for a lifetime.



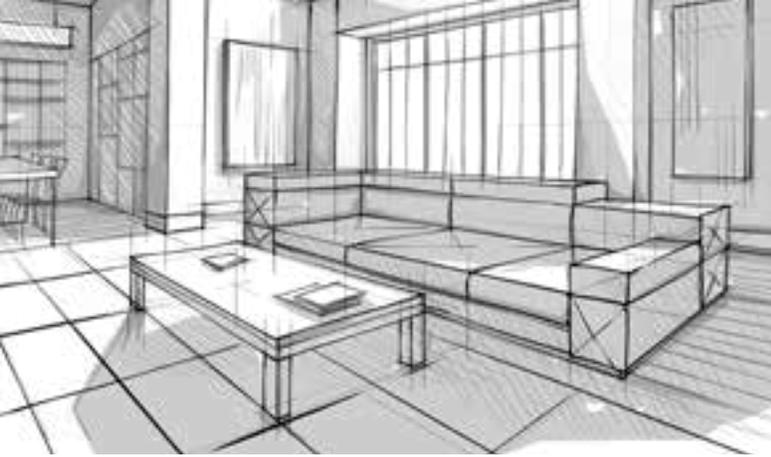
BUILDING SCIENCE IS THE KEY TO DEVELOPING PRODUCTS THAT CAN GIVE YOU THE COMPLETE COMFORT YOU WANT, AND NO ONE KNOWS BUILDING SCIENCE LIKE CERTAINTEED.

### LEAVE NO GAP

Tests show even a small gap in insulation causes substantial increases in heating and cooling costs, along with unpleasant hot and cold spots. **OPTIMA® Blown-In Insulation** fills crevices and creates a custom, seamless blanket to eliminate gaps and voids.



\* For more information go to [www.energystar.gov](http://www.energystar.gov)

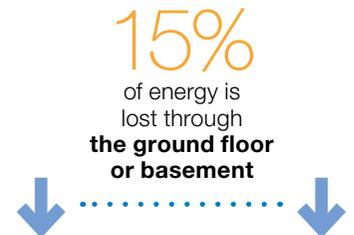
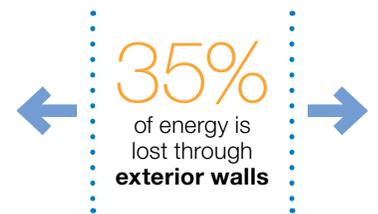
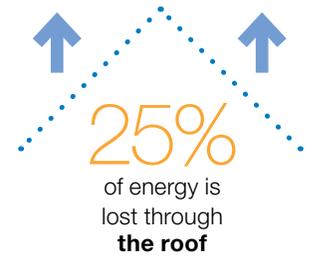


## THE HOME FUNCTIONS AS A SYSTEM

So it's critical to take the entire structure into account through Building Science to achieve Complete Comfort. Our comprehensive selection of fiberglass insulation and smart vapor retarder products ensures you can tailor the ideal solution for any need.

## Air Tightness

Air tightness affects the entire building envelope and plays a major role in successfully managing heat, moisture and sound.



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

### FLOORS, WALLS AND CEILINGS

are actually the largest source of a home's air leakage, accounting for more than twice as much leakage as windows and doors combined.

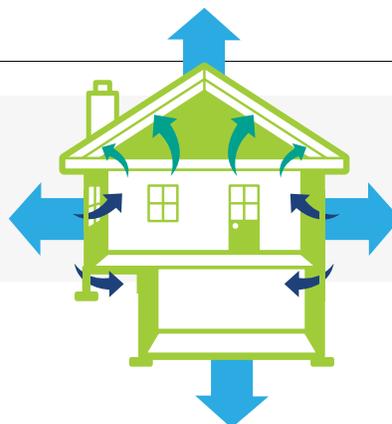
### CREATE A TIGHTER ENVELOPE



CertainTeed's revolutionary **MemBrain™ continuous air barrier and smart vapor retarder** leverages the industry's most advanced technology so you don't have to choose between superior air tightness and permeability. It revolutionizes air and moisture management and meets the most forward-looking IECC codes for air barrier protection.

### ACHIEVE CONTINUITY

**Air constantly moves from high to low pressure,** finding every penetration into and out of a home, which is why proper air sealing is crucial to create a continuous seal at all joints and penetrations. MemBrain provides continuous air barrier protection.



# Understanding Building Science



An average family of four can create **two to three gallons of water vapor per day**

## MANAGE MOISTURE IN THE CAVITY

*When you manage moisture, you reduce the potential for mold and mildew growth.*

### Mold

Moisture build-up can cause health issues through mold growth that releases potentially harmful spores into the air.

### Rot

Persistent moisture can eventually cause expensive structural damage.

\*Not all climate zones require vapor retarders. To determine whether they're recommended for your region, use our online insulation calculator at [www.certainteed.com/iTools](http://www.certainteed.com/iTools)



## Moisture Management

Moisture intrusion is unavoidable in any home, making moisture in the wall cavity almost inevitable — and dangerous if not properly addressed. Not only does moisture reduce the thermal efficiency of your insulation, it can also lead to mold, mildew and rot. It's especially important to manage moisture with brick, stone, block and stucco exteriors as they tend to retain moisture.

HELP WALLS DRY WITH ADVANCED SMART VAPOR RETARDERS\*

Moisture vapor, which travels in the air, can enter the home through external air leakage and everyday indoor activities. In fact, an average family of four can create **two to three gallons of water vapor per day** from cooking, bathing, washing dishes and laundry. When moisture vapor penetrates the wall cavity, it can condense on cold surfaces and accumulate in the building envelope.



Remains moisture tight in winter when humidity in the cavity is low.



Increases permeability in summer to let moisture escape when needed.

CertainTeed's innovative smart vapor retarders **SMARTBATT™** and **MemBrain™** prevent moisture build-up and are engineered to help wall cavities dry out.\* Unlike traditional polyethylene vapor retarders, they block moisture in the winter when humidity in the cavity is low and increase permeability during the summer when humidity is high to let moisture escape while still maintaining air tightness.



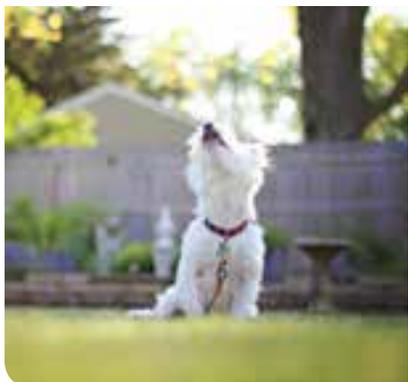
## MOISTURE AND ACOUSTICS DRAMATICALLY AFFECT COMFORT

It's critical for the right insulation system to control both, as they can greatly influence homeowners' health, peace of mind and overall quality of life.

## Acoustics

We all want a peaceful, quiet home. And insulation can help by managing noise from outside and throughout the house. CertainTeed insulation helps reduce exterior noise and is great for interior walls — helping quiet room-to-room sounds.

### HELP SILENCE THESE COMMON ACOUSTICAL OFFENDERS



#### Exterior Noise

- Road and air traffic
- Lawn mowers
- Barking dogs



#### Interior Noise

- Appliances (washing machines, dryers, dishwashers)
- Home theaters and video games
- Plumbing pipes
- Footsteps on hard flooring



Fiberglass insulation in interior walls and floors/ceilings can improve sound reduction between spaces by **5 to 15 decibels.**<sup>1</sup>

<sup>1</sup>"Sound Control for Commercial and Residential Buildings," *North American Insulation Manufacturers Association*, 1997.



**OPTIMA® Blown-In Insulation** delivers outstanding acoustic control, as it seals gaps that sound could travel through.

# The Right Solution for Every Home

## Online tools make your decisions easy

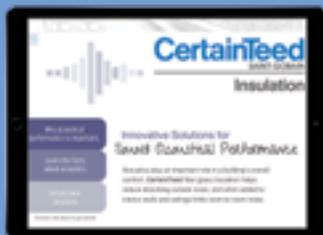
There's a lot that goes into building homes of Complete Comfort. That's why we developed a series of online tools that provides more in-depth information and shows you the solutions we offer in the less commonly understood aspects of Building Science: moisture management, acoustic performance and fire performance.

### MOISTURE MANAGEMENT:



[certainteed.com/managingmoisture](http://certainteed.com/managingmoisture)

### ACOUSTIC PERFORMANCE:



[certainteed.com/acousticperformance](http://certainteed.com/acousticperformance)

### FIRE PERFORMANCE:



[certainteed.com/fireperformance](http://certainteed.com/fireperformance)

## SMARTBATT™ with MoistureSense™ Technology + Caulk & Seal



- Advanced, first-of-its-kind technology physically adapts based on humidity inside the wall cavity to let water vapor escape
- Installs like traditional kraft faced batts but has greater performance and permeance rating
- Achieves air sealing and thermal efficiency as a complete system with standard caulk and seal



2×4 Wall  
**R-13 to R-15**

2×6 Wall  
**R-19 to R-21**

### IDEAL APPLICATIONS

Affordably achieving great performance in exterior walls and high moisture areas like bathrooms, laundry rooms and basements.

**EXCEPTIONAL PROPERTIES**



Moisture Management



**OUR BREADTH OF INSULATING** solutions ensures you can meet every building need, achieving optimal comfort and efficiency. We've compiled a series of systems to help you explore how you can achieve the greatest comfort in every situation.

### Sustainable Insulation® Unfaced Batt + MemBrain™



- Traditional fiberglass batts provide thermal comfort and are easy to install
- Battis are also good for achieving sound control in interior wall applications
- MemBrain smart vapor retarder and air barrier adds continuous air tightness and a layer of advanced moisture protection

### OPTIMA® Blown-In Insulation + MemBrain™



- Blown into wall cavity — filling voids
- Thermally efficient — leaving no gaps in the cavity
- Provides excellent sound control
- Higher R-Value per inch than fiberglass batts
- MemBrain continuous air barrier and smart vapor retarder adds air tightness and advanced moisture protection



2x4 Wall  
**R-13 to R-15**

2x6 Wall  
**R-19 to R-21**

#### IDEAL APPLICATIONS

Adding a superior level of thermal performance, adaptable moisture protection and air tightness to exterior walls, garages and basements.

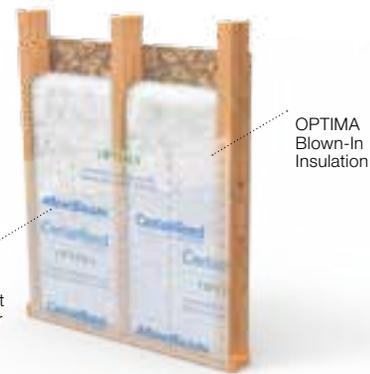
#### EXCEPTIONAL PROPERTIES



Air Tightness



Moisture Management



2x4 Wall  
**R-15**

2x6 Wall  
**R-21 to R-24**

#### IDEAL APPLICATIONS

Achieving among the highest R-Values and acoustical insulation in any region—especially in difficult-to-fill spaces.

#### EXCEPTIONAL PROPERTIES



Thermal Performance



Air Tightness



Moisture Management



Acoustics

**NOTE:** All CertainTeed insulation enhances the thermal and acoustical performance of a home.

# Meeting Every Insulation Need

**Our mission is to help you select the best insulation system,** through a wide product selection and in-depth Building Science expertise and education. Feel free to contact us and we can guide you through tailoring the optimal solution for your needs.

## RESIDENTIAL WALLS (WOOD STUD)

		Standard		Enhanced		Optimal
		Sustainable Insulation® Kraft Faced Batt + Caulk & Seal	Sustainable Insulation High Density Kraft Faced Batt + Caulk & Seal	SMARTBATT™ with Moisture Sense™ Technology + Caulk & Seal	Sustainable Insulation Unfaced Batt + MemBrain™	OPTIMA® + MemBrain
<b>R</b>	R-Value (2×4)	R-13	R-15	R-13 to R-15	R-13 to R-15	R-15
<b>R</b>	R-Value (2×6)	R-19	R-21	R-19 to R-21	R-19 to R-21	R-21 to R-24
	Exceptional Thermal Performance					✓
	Exceptional Air Tightness				✓	✓
	Exceptional Moisture Management			✓	✓	✓
	Exceptional Acoustic Performance					✓

NOTE: Adding MemBrain™ continuous air barrier and smart vapor retarder to most systems can greatly increase moisture management and air tightness performance.

## RESIDENTIAL ATTICS

		Standard		Enhanced	Optimal
		Sustainable Insulation Batts + Caulk & Seal	InsulSafe® SP Premium Loose Fill + Caulk & Seal	Sustainable Insulation Batts + MemBrain	InsulSafe SP Premium Loose Fill + MemBrain
	Exceptional Thermal Performance	All options capable of achieving R1-R60			
	Exceptional Air Tightness			✓	✓
	Exceptional Moisture Management			✓	✓



InsulSafe SP blown-in attic insulation provides excellent thermal efficiency that will not settle, ensuring R-Value integrity for the life of the home.

# Still not sure what's best for your home?

## Our Insulation Selection Tool can help

Choosing insulation may seem a little complicated, but really, it just boils down to four questions:

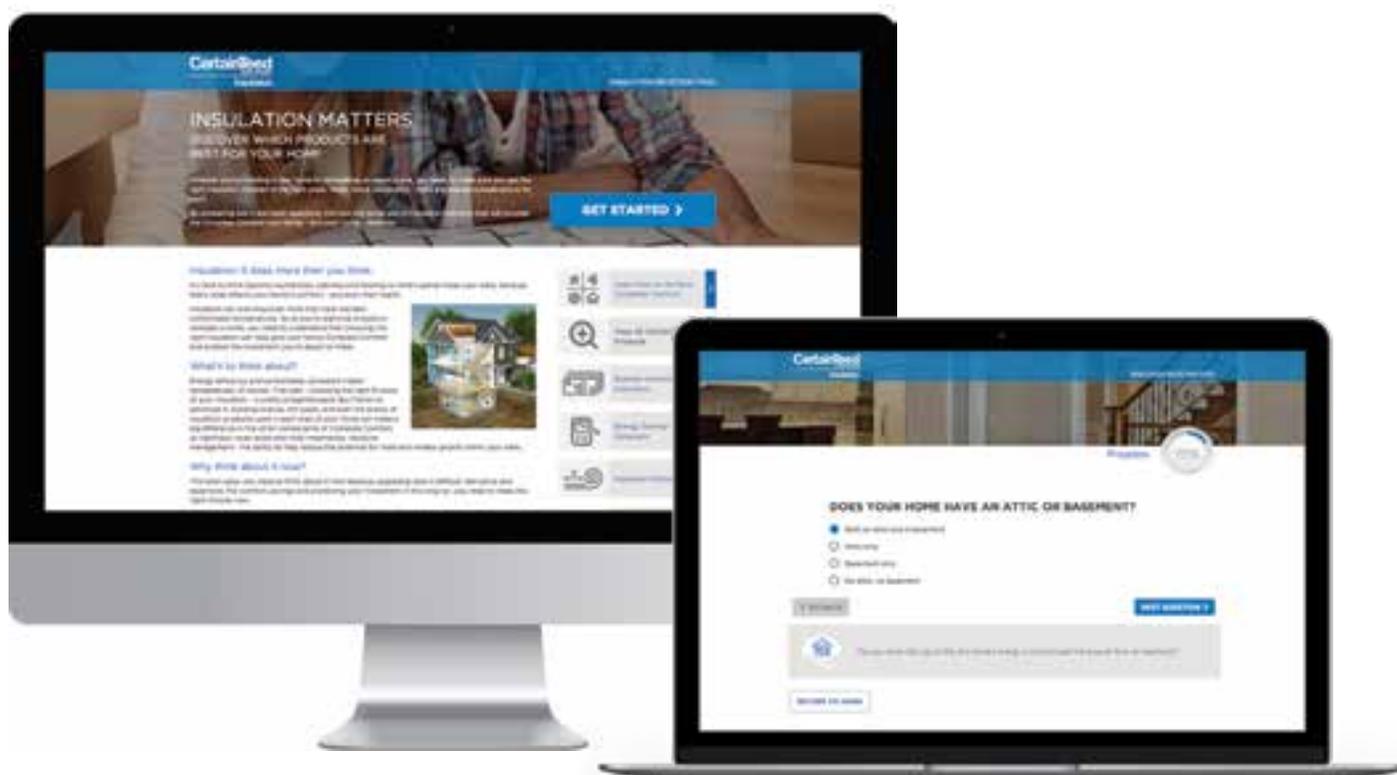
### Do you want ...

- Your home protected against moisture and the problems it can create?
- Your home to save energy?
- More peace, more quiet?
- Your home to be draft-free and have consistent temperatures throughout?

Then all that's left to do is to make sure you get the right insulation installed in the right areas of your home. Walls, attics, basements – there are special considerations for each.

That's why CertainTeed developed its **Insulation Selection Tool**. It's an easy-to-use application that, based on your answers to a few basic questions, guides you to insulation solutions that will provide the **Complete Comfort** your family – and your home – deserves.

[Take the quiz at certainteed.com/myinsulation](http://certainteed.com/myinsulation)



Create a More Comfortable Home

**CertainTeed**  
SAINT-GOBAIN

**Insulation**

At CertainTeed, we believe in a higher level of comfort. We believe in Complete Comfort, where your insulation system successfully controls thermal performance, air tightness, moisture management, and acoustics. That's why we offer a complete line of high performance insulation products that work together to ensure every building achieves Complete Comfort.



Fiberglass | Mold Prevention  
Technical | Equipment

learn more at: [certainteed.com/insulation](https://certainteed.com/insulation)



**CertainTeed Corporation**

ROOFING • SIDING • TRIM • DECKING • RAILING • FENCE • GYPSUM • CEILINGS • INSULATION

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