Commercial Insulation

PRODUCT SELECTION GUIDE





CertainTeed Insulation

Complete Comfort for your customers—and you

CertainTeed knows your business depends on giving your customers the best products and service — so we do the same for you.

We're the building science experts. We help you deliver the combination of thermal performance, air tightness, acoustic performance and moisture management your customers need. Like you, we know that no insulation product or system is right for every part of every building, budget or climate. That's why we offer **a complete line of high performance insulation products.**

Bring us your projects. Bring us your challenges. We've been in this business—and dedicated to your success—for more than 100 years. We're here whenever you need us with the quality products, support and services that help you create the spaces your customers want.



Learn more at certainteed.com/completecomfort

Quality—Selection—Service

Products

With a comprehensive product line, CertainTeed has everything you need to satisfy even the toughest building codes and customer demands for any new build, retrofit or remodel.

Service

We'll help you select and customize the best insulation system—the best solutions—for your customers. With our unmatched expertise, you can be sure you'll get what you need, when you need it.

Support

We're committed to helping you succeed. We provide prompt, outstanding technical assistance along with a range of online calculators, marketing tools and other business-building resources.

Sustainability

Like many of your customers, CertainTeed is committed to environmental responsibility. With the market for green buildings booming, we have the products, tools and certifications you need to meet green building standards.

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Comprehensive Solutions Backed by Building Science

Inside this catalog you'll discover how

CertainTeed Insulation's breadth of commercial insulation products gives you the best solution for any location, building, budget and customer.

With fiberglass Sustainable Insulation®, smart vapor retarders and air barriers, we have what you need to create the most efficient and comfortable building possible.

To learn more about the many services we provide to our partners, talk to your CertainTeed representative or give us a call. We're always happy to hear from you.

Insulation Benefits



Thermal Performance High efficiency fiberglass enables you to significantly improve the thermal performance of your customers' buildings. They'll save money on energy bills and enjoy a more comfortable space.



Air Tightness Sealing air leaks and infiltration points creates a tighter building envelope. In addition to reducing drafts and hot and cold spots throughout the building, conditioned air stays inside where it belongs, increasing overall thermal efficiency.



Moisture Management Beyond traditional facings, smart vapor retarders can help reduce the risk of mold and mildew, improving indoor air quality and providing a healthier environment for occupants. There's also less chance you'll be called back to deal with moisture problems.



ACOUSTICS Adding insulation helps prevent unwanted outside noise from penetrating the space and, when added to interior walls, limits transmission of noise from room to room.



Class A Fire Rating Fiberglass insulation is naturally noncombustible compared to other types of insulation. CertainTeed insulation products with this icon have achieved a superior Class A fire rating for commercial construction.

sustainable insulation.

CertainTeed is dedicated to Building Responsibly™. This commitment means more than simply producing high performance insulation that helps reduce energy consumption. It also means minimizing the impact of our manufacturing and shipping operations, and developing next-generation insulation products that raise the bar for environmental performance. Our line of Sustainable Insulation® is just such a

product. It is made from recycled content and a renewable, plant-based binder that does not have any formaldehyde, harsh acrylics, dyes or unnecessary fire-retardant chemicals added. What's more, the manufacturing process for Sustainable Insulation requires less water and consumes less energy than standard processes.

With exceptional handling benefits including superior rigidity, recovery and cutability, Sustainable Insulation improves job site efficiency. Batts and rolls are less dusty and easier to work with, while also providing the excellent thermal, acoustical and indoor air quality performance that customers demand.



Green Stewardship

Sustainable Insulation meets or exceeds all performance standards required for insulation products in the U.S. and Canada. It is also GREENGUARD Gold Certified and Home Innovation NGBS Green Certified. CertainTeed Insulation has a number of corporate affiliations and accreditations as well, including:

- FNFRGY STAR[®]
- North American Insulation Manufacturers Association (NAIMA) member
- CertainTeed's commitment to quality and the environment has ensured the certification of the Athens, Chowchilla and Kansas City plants to ISO 9001 and ISO 14001 Quality and Environmental Management System Standards
- GreenCircle® Certified—3rd party recycled content certification
- U.S. Green Building Council (USGBC)—member
- EPDs and HPDs are available

















CertaPro® Thermal Products

CertaPro[®] fiberglass thermal insulation delivers exceptional energy efficiency and is available in a number of configurations that meet the strict code requirements of commercial applications. They are lightweight, easy to install and, in line with all CertainTeed fibergalss insulation products, CertaPro batts resist mold and mildew and will not rot or deteriorate.

CertaPro® AcoustaTherm™ Batts (



Designed for friction-fit installation in steel stud wall construction, CertaPro AcoustaTherm™ batts enhance the thermal and acoustical performance of exterior and interior walls. They can also be laid directly atop suspended ceiling systems to reduce noise and cross talk. The batts are available unfaced or with kraft facing. Kraft faced batts are suitable for nonexposed applications and do not have tabs; they must be butted together when installed.

Unfaced Batts Product Availability		
R-Value	R-8 - R-30	
Thickness 2½" - 10"		
Width 16" - 24"		

Kraft Faced Batts* Product Availability			
R-Value	R-11 - R-19		
Thickness 3½" - 6¼"			
Width	24"		

*R-11 and R-19 are available in kraft faced tabless batts





CertaPro® Kraft Faced Batts

These light-density fiberglass batts improve thermal and acoustic performance of exterior and interior walls with steel stud construction as well as floor/ceiling assemblies. They feature a kraft paper vapor retarder facing that is suitable for nonexposed applications.

CertaPro Kraft Faced Batts Availability			
R-Value R-11 - R-19			
Thickness 3½" - 6¼"			
Width 16" - 24"			



CertaPro® Foil Faced Batts

These light-density fiberglass batts with a foil vapor retarder facing are designed for nonexposed applications where a 75/450 fire hazard classification is required. Sizes are available for both steel and wood stud construction to improve thermal and acoustic performance of exterior and interior walls and floor/ceiling assemblies. They are easy to install and, in line with all CertainTeed fiberglass insulation products, resist mold and mildew and will not rot or deteriorate.

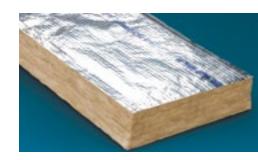


	Steel Studs	Wood Studs
R-Value	R-11 - R-38	R-11 - R-19
Thickness	3½" - 12"	3½" - 6¼"
Width	16" - 24"	15" - 23"

CertaPro® FSK-25 Faced Batts



These light-density fiberglass batts with a foil scrim kraft (FSK) vapor retarder facing are used where a 25/50 fire hazard classification is required; they are UL listed, with a flame spread rating of 25 for exposed applications. The vapor retarder facing has a low perm rating. Sizes are available for both steel and wood stud construction to improve thermal and acoustic performance of exterior and interior walls and floor/ceiling assemblies. In line with all CertainTeed fiberglass insulation products, CertaPro Thermal FSK-25 faced batts resist mold and mildew and will not rot or deteriorate.



	Steel Studs	Wood Studs
R-Value	R-11 - R-38	R-11 - R-19
Thickness	3½" - 12"	3½" - 6¼"
Width	16" - 24"	15" - 23"

CertaPro® Extended Flange Batts 🛕



These light-density fiberglass batts with 4-inch flanges are used to add thermal performance below wood deck roof systems found in large retail stores and warehouses, lofts and studios; they also absorb noise and reduce noise transmission. Thermal extended flange batts have a Class A/Class I fire hazard classification of 25/50 for exposed applications. Three facings are available: foil scrim kraft (FSK) and white poly scrim kraft (PSK)—which provide high light reflectance - and black PSK for areas where low light reflectance is desired. They are easy to install and, in line with all CertainTeed fiberglass insulation products, resist mold and mildew and will not rot or deteriorate.



Product Availability		
R-Value	R-19 - R-30*	
Thickness	6¼" - 10"	
Width	23" - 24"	

*Available in FSK only.

CertaPro® Commercial Board



Composed of resin-bonded glass fibers in a range of densities, CertaPro Commercial Board is an excellent choice for applications where the rigid properties of a board-type insulation product are beneficial. CertaPro Board can be used to add sound absorption to interior spaces and is available with foil scrim kraft (FSK) facing for a clean, metallic surface finish, or unfaced for use where an exterior finish will be applied. Additionally, unfaced and FSK facing are compliant where a fire hazard classification of 25/50 is required and can be used for exposed or nonexposed applications. Stiffness ranges from rigid to more flexible, allowing for a wider array of uses. Both unfaced and FSK faced boards are easy to install and, in line with all CertainTeed fiberglass insulation products, resist mold and mildew and will not rot or deteriorate.



Product Availability		
Туре	Thickness	
CB 110	1½" - 6"	
CB 150	1½" - 4"	
CB 225	1½" - 4"	
CB 300	1½" - 4"	
CB 600	1" - 2"	





This rigid fiberglass board is used for applications requiring an exposed black sound-absorbing insulation. AcoustaBoard™ Black has an abuse-resistant, nonwoven facing that is fully bonded to the insulation; delamination is not an issue. It is widely used to improve acoustics in theaters, sound studios and entertainment facilities—controlling reverberation time, reducing noise levels and eliminating echoes—and is ideal for interiors that are meant to be dark. It is lightweight, easy to install and carries a Class A/Class I fire hazard classification of 25/50 for exposed applications.



Product Availability		
Туре	Thickness	
225	1" - 2"	
300	1" - 2"	

CertaPro® AcoustaBlanket™ Black

This fiberglass blanket has an abuse-resistant surface and is used for applications requiring black sound-absorbing insulation. AcoustaBlanket™ Black is flexible for easy installation on irregular surfaces. It improves acoustics in theaters, sound studios and entertainment facilities—and is ideal for interiors that are meant to be dark. AcoustaBlanket Black carries a Class A/Class I fire hazard classification of 25/50 for exposed applications.



Product Availability		
Туре	Thickness	
150	1" - 2"	
200	1" - 2"	
300	1/2" - 2"	

MoistureSense™

Intelligent Moisture Management

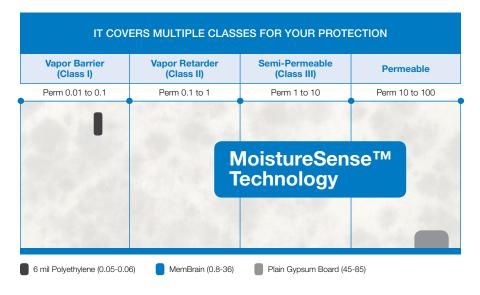
Moisture is unavoidable. It can get into wall cavities from the outside during hot, humid summers and from the inside during cold, dry winters. Traditional vapor retarders can trap moisture within the walls, creating a breeding ground for mold, mildew and wood rot. Insulation performance and indoor air quality can suffer and eventually, structural damage becomes a real possibility.

MoistureSense[™] Technology actively helps protect buildings from the damaging effects of moisture. It's a revolutionary way to manage moisture and create a healthier indoor environment for your customers.

How It Works

CertainTeed's SMARTBATT™ and MemBrain™ with MoistureSense Technology help prevent moisture buildup and are engineered to help wall cavities dry out. Their permeability adjusts according to the humidity levels inside the walls, keeping your walls dry year-round.

Why is MoistureSense™ Technology so smart?



Unlike other products, CertainTeed's MoistureSense solutions, such as MemBrain and SMARTBATT, straddle multiple vapor retarder classes.

How MoistureSense™ Works



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



Increases permeability in summer to let moisture escape when needed



To watch the video, visit: **certainteed.com/howmoisturesenseworks**



CertainTeed's exclusive MemBrain™ Continuous Air Barrier and Smart Vapor Retarder is the industry's most advanced technology, providing a continuous air barrier along with advanced moisture management in a single product to create better performing buildings and achieve Complete Comfort. MemBrain is unique among vapor retarders because of its ability to change its molecular structure. When humidity is low, it functions as a standard vapor retarder, like asphalt-coated kraft paper or poly. When humidity is high, it ranges from Class II (vapor retarder) to permeable. CertainTeed's MemBrain is superior over standard vapor retarders due to its ability to intelligently adapt and straddle multiple vapor classes, helping keep walls dry year-round.

	Product Availability					
Nominal Pr	Product Size		ninal Product Size Coverage		Box Length	
ft.	m	sq. ft.	sq. m	in.	m	
8'4"	2.54	833	77.4	28.3	718	
9'4"	2.84	933	86.7	31.5	800	
10'4"	3.15	1033	96.0	34.5	876	
12'4"	3.76	1233	114.5	41.0	1041	





SMARTBATTTM with MoistureSenseTM Technology is the first and only insulation that actively helps protect homes from the damaging effects of moisture. At the core of SMARTBATT is CertainTeed's sustainable fiberglass wool, which has been engineered for superior drying capabilities as well as thermal resistance and noise reduction. The SMARTBATT MoistureSense facing performs as a smart vapor retarder—its permeability adjusts according to the humidity inside the walls. When humidity is low, SMARTBATT keeps moisture from getting in. When it's high, SMARTBATT lets moisture inside the walls escape into the conditioned interior of the home, reducing the potential for mold and mildew growth. This product is ideal for crawlspaces, basements, bathrooms, laundry rooms, kitchens and exterior walls—any place you would use traditional kraft insulation. SMARTBATT meets or exceeds even the most forward-looking building code requirements for a vapor retarder, and with 66% less asphalt, it's even easier to cut and install than traditional kraft faced batts. SMARTBATT is a revolutionary way to manage moisture and create a healthier indoor environment for your customers.

Product Availability		
R-Value R-11 - R-38		
Thickness 3½" - 12"		
Width 15" - 24½"		



OPTIMA* For Sidewall Applications

Designed specifically for closed cavity applications, OPTIMA® is blown in behind a special OPTIMA fabric, or equivalent—creating a seamless, thermally efficient, sound-reducing blanket. OPTIMA provides a custom-designed install in new construction and is equally effective for retrofits of existing walls.

The OPTIMA system was specially designed to reduce fibrous dust during installation in closed cavities. Because of its unique fibers, OPTIMA will not settle or separate during installation or over time—even after it's been in the wall cavity for many years. The result is sustained R-Values and better thermal efficiency.

- Specially designed for fast install
- Get R-24 in 2x6 construction
- Ideal for dense-packing
- Outstanding thermal and acoustical properties



OPTIMA MidFloor



Installing OPTIMA in midfloor applications provides high-quality fire protection and sound blocking in one easy-to-install solution. This noncombustible insulation **meets NFPA**13 standard requirements, allowing it to be used in interstitial/midfloor spaces in conjunction with sprinklers or to replace sprinklers in residential, multi-family, commercial and hotel buildings five stories or less.

- Installs quickly and easily compared to sprinklers
- Increases aesthetic appeal—no sprinklers poking out of the ceiling
- Costs 25% less to install than sprinklers with no annual maintenance costs
- Provides "extra mile" fire protection when used in addition to sprinklers
- Improves STC rating by 14 points—meaning it cuts the apparent volume of airborne sounds in half





+/- 1 STC points
Almost imperceptible

+/- 3 STC points

Just perceptible

+/- 5 STC points
Clearly noticeable

+/- 10 STC points
Twice (or half) as loud

Fire Performance

Building codes regulate the type and location of materials used in building construction to provide structural stability and an acceptable degree of occupant safety when the building may be exposed to fire. Local code requirements must be consulted in order to determine specific compliance requirements.

Fire codes are intended to establish minimum requirements that provide a reasonable degree of safety from fire in buildings and structures. From the standpoint of building materials, the codes are generally concerned with flammability ratings of interior finish materials, combustibility of the construction and its components, and the ability of a construction to resist exposure to fire.

CertainTeed like Peklokman

Learn more about fire performance at certainteed.com/fireperformance



ENCAPSULATED FIBERGLASS INSULATION

EasyTouch™ fiberglass insulation is coated with a perforated plastic film, making installs easier and cleaner with less dust and free particles, limiting itching and irritation. This product can be used in metal and wood stud walls, above commercial ceiling grids and anywhere a Class A fire rating is needed. It is completely non-toxic and made with a plant-based binder without formaldehyde, acrylics, dyes or unnecessary fire retardants added.

Features

- Comfort-coated with EasyTouch perforated plastic film for cleaner, easier installation
- Unfaced EasyTouch provides a Class A fire rating
- Versatile—endless applications
- Made with a high percentage of recycled and renewable materials, including a plant-based binder

Product Availability		
R-Value	R-13 - R-30	
Width	15" - 24"	
Length	48" - 32'	

Special widths and lengths may be available. Consult your local territory manager.



^{*} Only unfaced EasyTouch is Class A Fire Rated.

Building Science

Building Science is the key to developing products that can give your customers the Complete Comfort they want, and no one knows Building Science like we do. Here we present a few of the basics behind the thermal performance, moisture management, air tightness and acoustic performance technologies available from CertainTeed.

Thermal Performance



Heat Flow

Heat flow is defined as the transfer of energy from one area to another due to a temperature difference between the two areas. Heat always flows from the area that has the higher temperature to the area that has the lower temperature. This heat transfer is accomplished by one or more of the following three methods:

- **Conduction**—direct transfer between solids and liquids. A good example: When you touch a hot object, the heat energy is transferred directly from the hot object to your skin.
- **Convection**—by air or other fluid movement. Fluids are heated by conduction at the hot surface and are then transported toward the cooler area where they again transfer energy by conduction to the cooler fluids with which they come in contact.
- Radiation—by electromagnetic waves. Energy in the form of electromagnetic waves leaves the hot surface and travels directly to another object, where it is absorbed. The sun warms the earth by radiation heat transfer.

Thermal Resistance and Thermal Transmittance

All materials or constructions resist the flow of heat to some extent. This property is called thermal resistance and is often designated as "R-Value," "R-Factor," or simply as "R." (Thermal resistance is designated as RSI in the metric system.) R-Value is a convenient property to use in commercial building construction because R-Values of materials in a series can be added to determine the thermal resistance of the total construction.

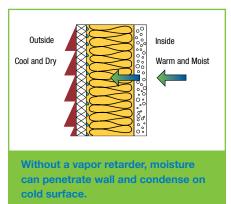
The Benefits of Insulation

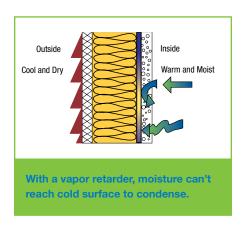
An under-insulated building will experience substantial heat loss and gain throughout the year. Sealing leaks and installing high quality CertainTeed insulation offers several benefits:

- Improved comfort, with fewer drafts and hot and cold spots
- · Lower energy bills year-round for the life of the building
- Ensures efficiencies in HVAC system performance



Moisture Management





Moisture

There's more to improving a building's energy performance than simply adding insulation ... though it's an excellent starting point! Every building is a system made up of separate components—the building envelope, mechanical systems and occupants—whose interactions affect how much moisture the building generates and how well it manages that moisture.

It's unavoidable—but manageable

During the heating season, water vapor is drawn from the building's warm interior to the cooler exterior. If its movement into attics and exterior wall cavities is not minimized by a vapor retarder, condensation occurs when the vapor contacts a cold surface. Continued exposure to such damp conditions can compromise insulation performance, damage wood framing and cause mold and mildew to grow.

Vapor Retarders

A vapor retarder is any material that limits or restricts the transmission of water vapor. CertainTeed fiberglass insulation is available with standard kraft, smart kraft, standard foil or flame resistant facings that function as vapor retarders. Unfaced insulation requires a separate vapor retarder when specified by code.

Air Tightness 🤝

Only when the building envelope is air-tight can conditioned air be retained within the building and outdoor air be kept outside where it belongs. Preventing leaks gives greater thermal comfort, increased energy efficiency and protection for the building materials against damage, helping the building maintain its appearance and extending its life. But the benefits are not purely financial, as high levels of air tightness also ensure healthy indoor air quality for the occupants.



Acoustic Performance



Solutions for Quieter Spaces

CertainTeed fiberglass insulation delivers more than just excellent thermal performance. CertaPro[®] insulation in exterior walls helps keep excessive outside noise—traffic, loud music, low-flying aircraft—from reaching distracting levels inside a building, while maintaining comfortable temperatures and lowering energy consumption. CertainTeed also makes several commercial insulation products designed to address the specific challenges of minimizing interior noise and creating outstanding acoustic environments for theaters and other entertainment facilities.

The solution of most room-to-room sound control problems is to design structural assemblies for optimum reduction of sound transmission and to fill them with fiberglass acoustical insulation. Installed in interior partitions, shaftwalls, ceilings and roof deck assemblies, CertaPro fiberglass insulation can reduce noise transmission, control noise within office areas and attenuate sound emanating from mechanical systems. In fact, in certain types of stud walls, STC ratings can be increased up to 12 points by adding CertaPro AcoustaTherm™ batts in stud cavities. Consult local building codes for recommendations best suited to the application.

For more on fiberglass insulation and noise control, see the CertainTeed brochure Noise Control for Buildings (literature code 30-29-121).

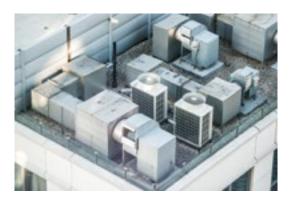
Common Acoustical Offenders



Office Space/Conference Rooms



Road and Air Traffic



HVAC Equipment



Construction



Learn more about acoustical performance at certainteed.com/acousticperformance

Specification Compliance

Model Building Codes

Model building codes establish minimum requirements to protect public health, safety and welfare in the built environment. Local and state governments adopt model codes to protect their communities from fire, structural collapse and general deterioration. These model codes are normally adopted in total or with amendments that reflect specific local needs, and in some cases the local jurisdictions write their code.

The International Code Council, a membership association dedicated to building safety and fire prevention, develops the codes used to construct residential and commercial buildings, including homes and schools. Most U.S. cities, counties and states that adopt codes choose the International Codes developed by the International Code Council. The most current code adoption information can be found at www.bcap-energy.org.

	ASTM C553, Type I	ASTM C553, Type II	ASTM C553, Type III	ASTM C612, Type IA	ASTM C612, Type IB	ASTM C665, Type I	ASTM C665, Type II, Class A, Category 1	ASTM C665, Type II, Class C, Category 1	ASTM C665, Type III, Class A, Category 1	ASTM C665, Type III, Class B, Category 1	ASTM C764, Type I
PRODUCT	AST	AST	AST	AST	AST	AST	AST Clas	AST Clas	AST Clas	AST Clas	AST
AcoustaTherm Batts — Unfaced	•					•					
AcoustaTherm Batts — Kraft Faced								•			
Thermal Kraft Faced Batts	•							•			
Thermal Foil Faced Batts										•	
Thermal FSK-25 Faced Batts	•	•							•		
Thermal Extended Flange Batts — FSK Faced	•								•		
Thermal Extended Flange Batts — PSK Faced	•						•				
CertaPro Board— Type CB 110				•							
CertaPro Board— Type CB 150	•	•	•	•							
CertaPro Board— Type CB 225				•							
CertaPro Board— Type CB 300, Type CB 600				•	•						
AcoustaBoard Black— Type 225				•							
AcoustaBoard Black— Type 300					•						
AcoustaBlanket Black— Type 150, Type 200	•	•									
SMARTBATT— Kraft Faced								•			
OPTIMA Sidewall & MidFloor											•

^{*}For product-specific material standards, please see product specification sheets online at certainteed.com/insulation.

ASTM Material Standards for CertaPro® Products*

ASTM C553-11, Standard **Specification for Mineral Fiber Blanket Thermal Insulation for Commercial** and Industrial Applications

- Type I, maximum use 450°F (232°C), k-Value not greater than 0.36 at 75°F (24°C)
- Type II, maximum use temperature of 450°F (232°C), k-Value not greater than 0.31 at 75°F (24°C)
- Type III, maximum use temperature of 450°F (232°C), k-Value not greater than 0.26 at 75°F (24°C)

ASTM C612-10, Standard **Specification for Mineral** Fiber Block and Board Thermal Insulation

- Type IA, maximum use temperature 450°F (232°C)
- Type IB, maximum use temperature 450°F (232°C) and compressive resistance not less than 25 lb/ft² (1.2 kPa) at 10% deformation

ASTM C665-11, Standard **Specification for Mineral Fiber Blanket Thermal Insulation** for Light Frame Construction and **Manufactured Housing**

- Type I, plain blanket
- Type II. blanket with nonreflective facing
- Type III, blanket with reflective facing
- Class A, facing flame spread < 25
- Class B, facing flame propagation resistance > 0.11 Btu/ft2
- Class C, facing not rated for flame propagation resistance (for nonexposed applications only)
- Category 1, facing is a vapor retarder
- · Category 2, facing is not a vapor retarder

ASTM C764-11, Mineral Fiber **Loose-Fill Thermal Insulation**

- Type I, Pneumatic application
- Type II, Poured application

Create a More Comfortable Home



Insulation











