

Insulation Options and Their Benefits

Insulation plays an important role in maintaining the energy efficiency of your home. Effective insulation keeps your home warmer in the winter and cooler in the summer, helping to maintain a comfortable indoor environment. Proper insulation not only lowers energy bills by reducing the need for heating and cooling, but it also decreases the strain on HVAC systems, which could help your equipment last longer.

Selecting the right type of insulation is essential to maximizing these benefits. Each home has unique and specific energy needs, so the best insulation for one home might not suit another.

Whether it's fiberglass, foam or cellulose, choosing the right insulation material and proper installation method ensures long-term savings and comfort.

WHAT IS AN R-VALUE?

An R-value is a number that tells you how well a material insulates your home from outdoor temperatures. Materials with higher R-values better insulate your home. Statewide energy codes dictate the minimum R-values materials in your home can have to ensure they meet the standard, but you can discuss with your contractor options with higher R-values.

BATT VS BLOWN-IN

There are two main types of insulation: batt and blown-in. Batts are large rolls or sheets of insulation that fit in the gaps of your house's framing and can be installed as DIY projects.

Blown-in insulation systems require a professional because they are sprayed by specialty equipment to distribute the insulation. Because it is sprayed, these options can be installed very quickly and then require a few days to dry.

There are pros and cons to every insulation type, and different homes have specific needs and budgets that may make one better suited for you.



*Fiberglass insulation.
Stock photo*

DIFFERENT OPTIONS

Blown-in blanket system (BIBS)

- R-value = 4.3 per inch
- BIBS insulation is made of manufactured fiberglass wool and is a more expensive option for insulation.
- Because it requires a blower to install, you must hire a professional to handle installation. Blown-in insulation can better reach voids and corners that are often hard to get with large rolls or sheets of insulation.

Fiberglass

- R-value = 4.3 per inch
- Fiberglass batts are the large pink rolls that many people use to insulate their homes. These rolls have a very high density and work well to insulate a home. Fiberglass rolls come in two options: faced and unfaced.
 - ◇ **Faced:** A faced fiberglass insulation system has a layer of paper or foil on it that holds it together and works as a vapor retarder to block water from entering through walls and ceilings. However, this paper layer does add a combustible element to the insulation that may become a fire hazard.

- ◊ **Unfaced:** Unfaced insulation can be more difficult to install as it is not held together by the paper layer, but it still offers great insulation. Despite being slightly cheaper, unfaced insulation does offer better sound insulation. However, no vapor retarder makes it not a great option for Louisiana's moist climate.

Cotton insulation

- R-value = 3.8 per inch
- This material is made from recycled denim which makes it more environmentally friendly. This insulation is treated with solutions to be fire, mold and pest resistant. It is a more expensive option and

not commonly used but still offers sufficient insulation in walls, attics and crawl spaces.

Cellulose

- R-value = 3.8 per inch
- Cellulose is recycled organic materials like newspaper that are installed by mixing with water then spraying into the cavities in the walls. Cellulose can be treated with borate to prevent pests and rot without posing any risk to human health. Because it is made of recycled materials and acts as a good insulator, cellulose is considered one of the most sustainable options of insulation.

SPRAY FOAM OPTIONS

Spray foam insulation is a more expensive insulation option that is applied by a professional installer by spraying a solution in the voids and between the joists in your walls, attics and crawl spaces. The solution self-adheres to the surface and expands to provide insulation. Unlike rolls of insulation, the foam is not at risk of falling out of its cavity and can last a long time in a home.

All spray foams are good options to prevent pest infestations as they are dense and do not leave gaps for small rodents to enter like the larger sheets of insulation do. However, termite damage is still possible and potentially very difficult to detect in the foam. To prevent this, foam can be treated with chemicals to repel and kill termites.



*Spray foam insulation.
Stock photo*

There are different options available for spray foams:

- **Open cell spray foams** have small bubbles in the foam which make them lighter and more flexible. Open cell foams allow water to pass through them which can be beneficial in identifying potential leaks in your roof. There are also options of what the spray foam is made of, like soy or vegetable oil.
- **Closed cell spray foams** are much more rigid because they do not have the small air bubbles like open cell options. This makes them much more dense and better at insulating than open cell foams. The density also makes it a vapor barrier and can add structural strength to your home.



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