



## Spray Foam Insulation: Installation, Tips and Best Practices

A large percentage of heat escapes through the attic and the walls of a home. However, a new approach to insulation can make a big difference.

In order to build a better thermal envelope, we need to look at the second law of thermodynamics. This law states that heat flows in one direction, from a warm space to a cold one. For example, warm air inside a home will flow to the cooler air outside during winter months.

Fiberglass batt insulation helps prevent this from happening, but there's a better method for preventing heat loss—one that is easy to install and is within your budget.

The best practice for insulating is to use spray foam insulation to fill the spaces between the framing studs in the walls and attic. Spray foam insulation is non-toxic and typically has a lifetime guarantee. It expands to about 100 times its original volume, so it fills in air gaps unlike standard fiberglass insulation. Over time, as the house expands and contracts, so will the foam insulation. This eliminates cracks and spaces for warm air to escape.

If you're insulating a small part of a wall or several small spaces, you're probably better off buying your own tanks of spray foam from a local contractor. However, for areas larger than 200 square feet, such as an attic, you should consider hiring a professional. It's cheaper for you, and they'll have the equipment for such a large-scale job.

Here's how to insulate a large space with spray foam insulation:

- ▶ First, do a test spray. Remember, this material expands to about 100 times its initial volume, so use it conservatively.
- ▶ Next, spray evenly between the studs and on the backside of the exterior sheathing. Allow it to expand so it fills all the gaps.
- ▶ After allowing the foam to form and set, take a handsaw blade and shave away any foam that extends past the studs. The foam needs to be flush so that it won't be an obstacle when you're ready to install the drywall.

The most common insulation method is to use fiberglass insulation batts, which are placed between the studs and stapled into place. The drywall is then nailed over it, creating a straight wall. Although this is an acceptable method, it does not create an airtight seal, so heat can escape. The amount of heat that escapes from the average home every day could fill up a blimp. That's a lot of air and a lot of wasted energy and money!

By using the better practice of spray foam insulation in walls and attics, you can create a better air-tight envelope. This gives an advantage over common batt insulation in both efficiency and cost.

### Related Articles:

[Blown-In and Wet-Spray Cellulose Insulation.](#)

[Insulating an Attic Access.](#)

[Roof Insulation to Reduce Ice Dams.](#)

