



Home Tips



• CHRISTIAN BUILDING INSPECTORS, INC., 3697 HABERSHAM LANE, DULUTH, GEORGIA 30096, 770-849-0920 • DECEMBER 2011 •

Q & A

Spray Foam Insulation?

We have heard great reviews about spray foam insulation and would like additional information. Can you install it in an existing home? Is it worth the cost?

There is no doubt that spray foam insulation is the way to go in building a new home. It is estimated that a home can lose up to 70% of its energy due to poor insulation. When it comes to adding it to an existing home, several factors come into play

There are many types of insulation products available. Two of the very best are spray applied polyurethane foam also known as SPF. Typically these are categorized in either their "open cell" or "closed cell" formulation which is



determined by its density. Generally any foam with density of 1.5 lb/cu/ft or greater would be considered a closed cell formulation. Anything less would be an open cell formulation. Both of these materials have incredible insulating properties.

Benefits of Spray Foam

- Has high R-value per inch (open-cell 3.5 per inch and closed-cell 6.0 per inch)
- Eliminates air infiltration
- Helps control moisture and condensation
- Reduces convective currents in walls and attics

- Closed cell SPF adds structural strength and glues a building together, thereby making it more resistant to racking events, such as hurricanes and high winds.
- SPF reduces noise from outside by air sealing the building.
- Closed-cell SPF can provide an added barrier against water intrusion.
- SPF reduces drafts and increases comfort.
- SPF helps maintain a comfortable, constant, temperature throughout the building, from room to room and floor to floor.
- SPF assists in improving indoor air quality.
- SPF reduces the infiltration of outside air pollutants and soil gases.
- Excellent insulation efficiency of SPF can reduce heating and cooling usage dramatically.
- HVAC equipment can be down-sized, thereby reducing construction costs.
- SPF will not sag or settle.
- SPF contains no formaldehyde or ozone depleting substances.



Eliminate Attic Ventilation

One of the largest benefits of spray foam is being able to eliminate attic ventilation. By spraying the underside of the roof deck and attic gable walls, you eliminate most of the outdoor temperature from entering the attic. You remove the attic floor insulation and turn the attic into conditioned space. It is incredible to go into the attic during the middle of the summer and find it 75 degrees. This can keep the attic space very comfortable indeed. Consider doing this if the heating and cooling equipment must be placed in an attic space. If this equipment and the connected ductwork are exposed to extremes of hot and cold, it can lead to higher energy costs. But keep in mind that the attic is often the sole pathway for excess interior water vapor to leave a home. Some foam insulations may significantly block the movement of water vapor. In addition, consider the open-cell variety so if there is a roof leak, the liquid water passes through the insulation and is not trapped against the wood roof sheathing and framing lumber.

Cost

Is it cost affective to install spray foam insulation? It will vary with each house. There is no way to "ball park" a cost. We recommend obtaining a quote from a qualified contractor. This is NOT a do it yourself project. One example I saw was a 2400 square foot house that had a price of \$6,240.00 to insulate the attic rafters. This included removing the existing insulation from the attic floor. The average electricity and gas

bills were \$1,684.00. It is estimated that spray foam can save you around 40% on your utilities (this will vary on every house). If you figure a savings of \$674.00 per year, that will be a payback period of 8.5 years. This makes sense if you live there for 10 years. It does not make sense if you move in 5 years. Do your own math and see which way is better for you. If you insulate this year, you can take advantage of the 2011 Tax Credit which allows you to deduct 10% of the installed cost up to a maximum of \$500.00. This will reduce the out of pocket expense.

Other Tax Credits

You can also get a \$300.00 tax credit for certain new heat pumps and a \$300 tax credit on certain air conditioner condensers. See: http://www.energystar.gov/index.cfm?c=tax_credits.tx_index.

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A Tip Of The Hat To:

***Everyone*
Who Referred Us
*In 2011***



Thank You



Merry Christmas
From
Amanda, Angelia, Colleen, Erin, Kim, Mary, Paul & Rod