

Ask Jon Eakes

ICYNENE - a spray foam insulation that excels in saving energy.

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Any insulation that is properly installed to provide R-20 of insulation will save just as much energy as another insulation installed to R-20. So why have I accepted to do media work for one insulation company over another?

Because there are many ways that we lose energy in a home and thermal insulation as such only deals with one of the important mechanisms, conduction. In fact there is a law of diminishing returns in that as you add more insulation you always save more energy, but you save less and less energy per inch of insulation as you add more. However the insulation itself has a constant cost factor. Hence the cost effectiveness (the money saved compared to the installed cost) of each additional thickness of insulation diminishes and, depending on the insulation cost and the energy costs, there is always a point where it is not cost effective to continue piling up insulation. As energy costs rise, more insulation is justified, which helps to explain why the code requirements for insulation have slowly increased over time.

We also lose energy through air leakage and radiation. Radiation losses in a cold climate are not really very important, and in fact I would rather not block solar gains in the winter with reflective products. Air Leakage however is dear to my heart and to your pocket book.

Spray foam insulations do an exceptionally good job of air sealing any part of the house where they are used and when the entire house is insulated with foam insulation, the air barrier is just about perfect. Many insulation products, like regular batts, do not block air movement and they obtain their optimum efficiency only when combined with a good air barrier system. Sprayed in place foam does the two at the same time - something that is cost efficient and less prone to construction errors or damage of the air barrier during the construction process.

Why Icynene over other spray systems? Simply because I believe it to be one of the best insulation systems around. It sticks like crazy and won't come loose. It remains flexible and doesn't shrink so will not crack open if there is house settlement. Unlike some of the flexible foam competition, it will drain freely without any physical distortion if water does get into the walls, allowing for quick drying out of a problem. And because it won't hold moisture and maintains a near perfect air barrier over time, it continues to provide the full R-value you installed on day one as well as maintaining complete control over air leakage.

On the ecological side of things it is sprayed with steam, so no off-gassing. The protective gear you see is simply because it is very sticky for the few seconds it requires to dry and a workman near the spray gun comes out quite white.

To do all of this it needs to be installed by a trained professional with special equipment, so this is not a DIY product. It was developed and perfected in Ontario and dealerships are spreading into the US and across Canada. If it is not available in your area you may want to become a licensed installer. For more information visit www.Icynene.com.

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