

# AN AIRTIGHT SOLUTION

## for energy-efficient design & construction

With double-digit percentage increases in energy costs, there's a growing sense of urgency for the building community to find a better approach to energy efficient buildings.

Expanding knowledge of the building envelope offers valuable clues to creating more energy-efficient homes and happier homeowners. There's no better place to capitalize on this knowledge than in our approach to R-value and insulation performance.

The building industry has grown comfortable with the concept that more insulation is better, along with higher R-value, but product options like The Icynene Insulation System® offer a better approach to energy efficiency.

### Consider:

#### R-value can't do a thing about air leakage



R-value measures an insulation's ability to inhibit conductive heat flow, but can't do a thing about the primary method of heat transfer – air leakage (convection) - which causes up to 50% of building energy loss (U.S. Department of Energy's Oak Ridges Laboratory).

#### Higher R-value provides minimal and diminishing returns



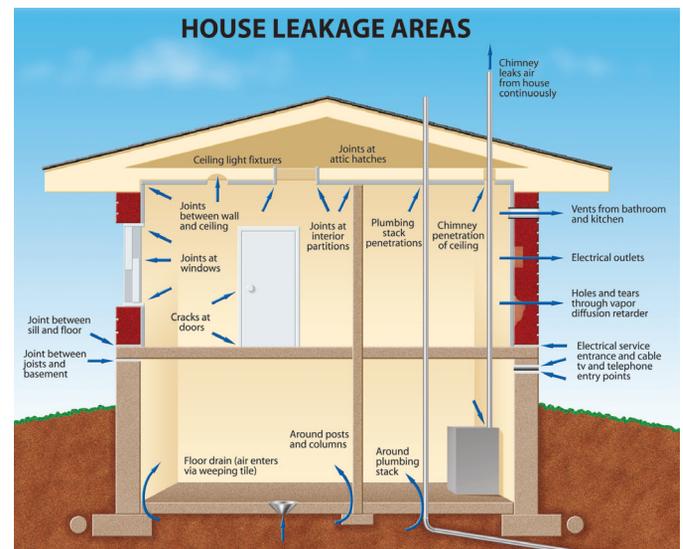
93% of conductive heat flow is stopped by R-13 insulation. Upgrading from R-13 insulation to R-32 insulation, for example, reduces conductive heat flow by only another four percent (Fourier's Law of Thermodynamics).

## SEAL THE DEAL WITH ICYNENE... for superior energy efficient building performance

The science is clear. Building and remodeling practices that promote air-sealing offer far greater potential energy savings than added R-value. That can only help seal the deal with homeowners who prefer energy-efficient alternatives.

### THE ICYNENE INSULATION SYSTEM® CAN:

- **Create a continuous air barrier system** capable of addressing air leakage so can reduce energy use by up to 50%
- **Help reduce heating and cooling loads (and costs)** and the need for larger/costlier mechanical equipment
- **Improve indoor air quality** by reducing entry of outdoor pollutants, allergens and airborne moisture



To find out more, visit [www.icynene.com](http://www.icynene.com)

