



What Is The Icynene Insulation System?

The Icynene Insulation System[®] is a complete insulation, air and moisture barrier system that wind proofs and seals wall, floor and ceiling cavities against air movement, including spaces around electrical outlets and light fixtures, at baseboards and where walls meet windows and doors. This means that outside air (either hot or cold) cannot seep through walls, causing drafts or cold spots. It also means that humid interior air cannot enter the walls and condense.

The system combines a material with a Certified Service providing any builder or homeowner with a truly cost effective method of energy efficient construction. The material is polyicynene foam (see Product Specifications), an organic material developed from products of the petrochemical industry similar in composition to many that are already in home use today. The service is a custom installation on the building site by trained and Certified Installers, providing a custom insulation fit into any size cavity.

By virtue of its low permeability to air, its adhesion to other building materials and its flexibility, The Icynene Insulation System[®] becomes much more than just insulation. It provides superior air leakage control, moisture control and sound control in addition to insulation, thus becoming a one step insulation, moisture/vapor barrier, wind barrier system. The Icynene Insulation System[®] takes the place of building wrap, fiberglass, polyethylene vapor barrier, tape, foam and caulking, and eliminates the labor intensive work associated with air-tightness detailing when insulating with conventional insulation products.

Unlike "loose fill" insulation methods that do not wind proof building cavities, the air sealing characteristics of The Icynene Insulation System[®] provide virtually the same R-Value in the field as it does in the laboratory where the R-Value is measured. Cold air in winter and hot muggy air in summer just cannot pass through polyicynene foam like it can through most other insulating materials.

Each project has its own unique opportunities and obstacles. Icynene[®], because of its expanding soft foam characteristics, has the ability to adapt to countless building applications.

Advantages of the Icynene Insulation System?

As well as simplifying the construction process for the builder, Icynene[®] Insulation eliminates the major causes of building envelope problems, air-borne moisture movement and entrapment.

Blower door tests have shown that steel framed home insulated with Icynene[®] Insulation, and with no polyethylene vapor barrier, measures 1.2 ACH at -50 Pa.

depressurization. This is well under the 1.5 ACH50 rating for the most energy efficient home. Heating and cooling costs are typically reduced by 30 to 50%, and smaller, less expensive heating and cooling equipment can be used.

For the homeowner the advantages are:-

- Compared to other technologies, The Icynene Insulation System[®] is a less expensive method of building an energy efficient home.
- A more energy efficient home means that energy costs can usually be reduced between 30 and 50%.
- A more comfortable home, free from drafts and cold spots.
- A quieter home because Icynene creates a continuous sound barrier against outside noises.
- A healthier home - when used with a mechanical ventilation system, superior indoor air quality provides your family with a much healthier place in which to live.

What is Icynene[®] Insulation Made Of?

Icynene[®] insulation is a water-based formula that contains no formaldehyde, CFCs or HCFCs. The insulation has the texture and look of angel food cake and is made up of millions of tiny cells. These cells are filled with air and provide permanent control of air and airborne moisture movement. Icynene contains no materials that emit harmful gases.

How is the Icynene Insulation System[®] Installed

There are two different ways to install Icynene[®] insulation — spray it onto any open surface and studded wall or pour it into an existing wall cavity when renovating. With any open surface, Icynene[®] insulation can be sprayed on once electrical and plumbing services are in place. It then expands to 100 times its initial volume in seconds, permanently adhering to the surfaces of the surrounding building materials and sealing all gaps.

For retrofitting existing walls, a slower expanding formulation of Icynene is used during renovations. The material is simply injected into small holes drilled into plaster or gypsum walls, or from the outside of the wall.

Southwest InSEALators is a company in the indoor air quality field. The products we use and the service we give are of the highest feasible standard. We want our customers to be a part of the quality standards that health and sustainability are very important criteria in every purchasing decision. Southwest InSEALators helps to implement the physical changes necessary to address

complex environmental and health problems. We do so by helping people change what they know, what they buy, what they build, also in how they make their decisions about such a purchase.

Southwest InSEALators employs the Icynene Insulation System[®]. It is the first insulation system to achieve and maintain stringent Envirodesic[™] standards. Two unique properties qualify it as a breakthrough product in indoor air quality. First is the ability to air-seal an exterior building envelope. As air moves across leaky buildings walls and ceiling this is a cause for mold growth in building materials. Weather in a cold climate with moist interior air migrating outwards, or in a warm climate with humid outside air migrating inwards, walls that permit such air flow can accumulate condensation on cold surfaces, and mold can grow rapidly under such conditions. Mold is now recognized as a health hazard not only for allergic individuals, however to the general population as well, because of the presence of the toxic species. Icynene's ability to avoid mold growth helps reduce these and other respiratory health risks and maintains the structures value.

Icynene's second breakthrough property is that it cures to a stable non-emitting form, which does not add pollutants to the indoor air quality of a building. For this reason, Icynene[®] is ideal for protecting your children's health at home, at school (including the school portables). Icynene has also been used successfully in the homes for hypersensitive and allergic people. Icynene[®] is just not any old insulation.

Icynene[®] has created a major change in the way buildings can be built, and represents a major step forward in the ease of making high integrity walls and ceilings that are not prone to leakage and mold growth. Icynene[®] has established that a new standard for low-emission performance is entirely feasible and something that we all should expect in all buildings of the future.

Southwest InSEALators works with homeowners, builders, architects, developers and various organizations to produce healthier and more environmentally compatible buildings on a healthier and more sustainable basis for the sake of humanity and the planet. The future is now, being build one building at a time.