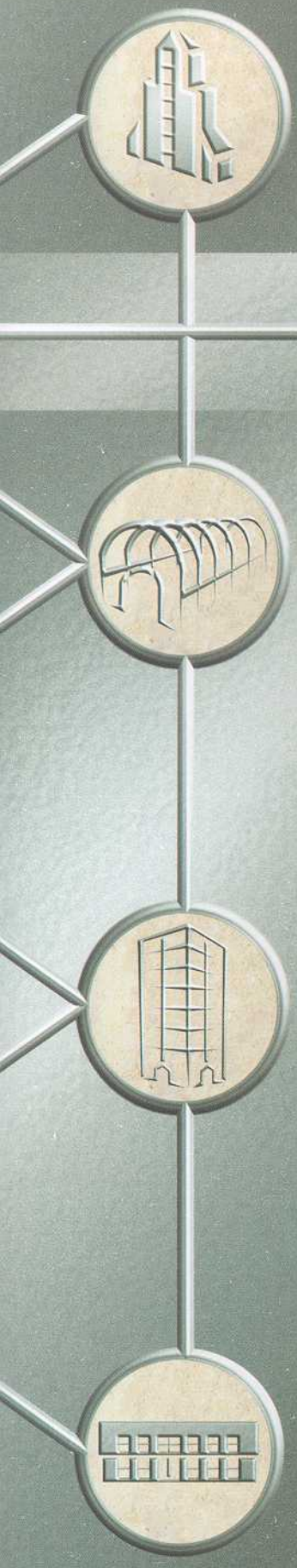


TOTAL PROTECTION

THE ICYNENE INSULATION SYSTEM®

ICYNENE®

Healthier, Quieter, More Energy Efficient™

ICYNENE®

The Ultimate Airtight Building Solution

A controlled, healthier environment in a sound-protected, moisture resistant structure. High energy efficiency to reduce costs and save natural resources. The Icynene Insulation System® is the most complete solution for steel frame construction.

RAISING THE BAR

Once in a while, a new construction material or method comes along that not only surpasses all code requirements, it's capable of raising the standards. **The Icynene Insulation System®** has been making a profound change in the perceptions of insulation's role in commercial and residential construction for over a dozen years, fulfilling every promise in thousands of buildings.

Look at all the pluses and minuses of the properties of insulating materials and their installation requirements, and you'll find that Icynene® has *all* of the benefits and none of the drawbacks. Building scientists have recognized that air leakage has a greater impact than R-value on the performance of a building. Icynene is not just an insulation system – it insulates *and* air seals.

As an expandable foam spray, Icynene® is the easiest to install and the most perfect fill for steel frame buildings. It helps create a healthy environment. It reduces maintenance costs by helping to reduce moisture problems for the life of your building. Also, it can *dramatically* lower the sizing and operating costs of heating and cooling equipment.

WHAT IS ICYNENE®?

Icynene® is polyicynene expanding foam insulation, an environmentally safe development in low density, cellular plastics. Chemically, it is in a class of its own. It allows foam to be sprayed without ozone destroying gases (HFAs or HCFCs) or formaldehyde. The micro-cells of this breathing material are filled with air and there are no gas emission hazards. Icynene® is the only insulation material certified by the Envirodesic™ Certification Program for healthier indoor air quality.

A BLUE CHIP INVESTMENT.

With Icynene,® your new or retrofit building is permanently protected, sealed off from wind, pollutants and airborne sound, and resistant to condensation-related problems. The energy savings alone pay down your investment cost many times over. *Nothing else comes close.*

The Icynene Insulation System®

THE SPRAY-IN-PLACE INSULATION SYSTEM

QUICK AND EASY INSTALLATION

Icynene® is sprayed or injected on site by certified dealers, independent of other trades. Installation is not delayed by weather conditions. Icynene® expands at a ratio of 100:1 to fill every crevice, virtually eliminating air leakage, convection and airborne moisture movement. The cream colored foam is totally cured in about 20 seconds and can be covered immediately. Excess material is easily trimmed. Icynene® adheres to almost all building materials and is especially suitable for steel buildings.

In areas traditionally inaccessible for other insulation products, Icynene® can be injected into small openings to ensure a superior level of performance. Unlike other insulation materials, it fills every framing cavity and conforms to the details with no hang-up on fasteners, plumbing or wiring.

A QUIETER BUILDING

Icynene® is an effective barrier to airborne sounds. Its superior fit makes it an ideal sound proofing system, reducing airborne sound transfer through roof, floor and walls. Outside noises such as road traffic, aircraft and trains stay outside. Inside, there are far fewer complaints about next door or next floor noises.

HEALTHY, CONTROLLED ENVIRONMENT

Icynene® seals the building envelope against wind and airborne moisture. It creates a comfortable draft-free, condensation-free environment in a single application. By sealing out dust, allergens, odors and pollutants, Icynene® allows the air management system to be designed so that the indoor air quality is healthier than outside air. It does not emit gases or odors and offers no support to bacteria or fungus. An Icynene® insulated environment is highly recommended for those suffering from allergies, respiratory problems and chemical sensitivities.

EXTREMELY DURABLE

Once installed, it does not shrink, settle or disintegrate. Unlike most conventional insulating materials, it maintains its efficiency with no loss of R-value as it ages. And it offers no food value to termites, other insects or rodents.

HELPS PREVENT MOISTURE-RELATED PROBLEMS

By preventing condensation, Icynene® eliminates sweating metal under the roofdeck or airborne moisture inside walls, avoiding problems with mold and mildew.

FRIENDLY TO THE ENVIRONMENT

It contains no ozone-destroying chemicals and its high efficiency enables buildings to be heated or cooled with the least possible consumption of the natural resources required to produce energy. *When you think Green, think Icynene.®*

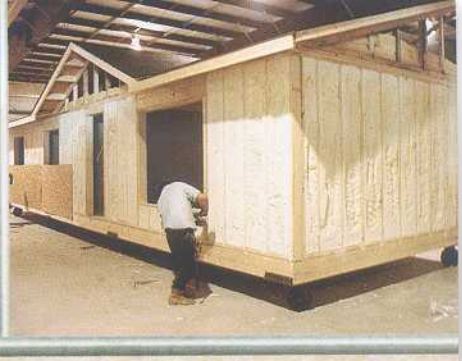
FAST PAYBACK

By reducing air leakage to an absolute minimum, the capacity and cost of heating and cooling equipment can be lowered. Total energy savings are often as high as 50% of conventional costs. In addition, the elimination of moisture-related problems such as staining and mold can avoid substantial maintenance and repair costs.

A VERSATILE SOLUTION

Since every crevice can be easily filled, Icynene® offers greater architectural freedom in building design. It can also solve insulation, sound and moisture problems in existing buildings, and can offer solutions for complex insulation applications for industrial, agricultural and commercial projects.

SOUND INVESTMENT. PROVEN PERFORMANCE.



FOR COMMERCIAL CONSTRUCTION

If Icynene® seems too good to be true, here's what people are saying about it ...

"We tried Icynene® for partial projects, which gave us the confidence to install it throughout our new 122-room Marriott Courtyard hotel in North Charleston. We expect it to solve our mildew problems, our sound problems, and also contribute to energy savings. And it's a 'green' product, too."
Bill Hoy, Vice-President, Design and Project Management, Marriott International Inc., Washington, DC

"As far as we are concerned, Icynene® is the future of insulation technology. It is the perfect choice for steel frame builders who seek performance from their insulation in terms of energy efficiency and sound reduction and who do not want to deal with moisture problems later on."
Del Bonds, President, Inter-Steel Structures, Seattle, WA

Insulation retrofit at Cocoa Beach Clubhouse, Florida...
"Air tightness testing, before Icynene® insulation was installed, measured 31.8 ACH50 (air changes per hour at 50 pascals). After installation of Icynene® on the underside of the roofdeck, the building tightness improved considerably to 6.9 ACH50. Given the complicated geometry of the clubhouse, we consider the retrofit to be successful."
Florida Solar Energy Center

"I cannot adequately express our satisfaction with your insulation. Almost immediately after your product was installed, we noticed vast improvements with the sound control."
Mike Bradbury, Plant Operations Manager, St. Vincent Memorial Hospital, Taylorville, IL

"The Icynene® installation was every bit to my satisfaction as to performance. We insulated about 6000 sq. ft. of ceiling and approximately 1820 sq. ft. of wall space. The month before installation, our gas bill was over $600. After the installation, it dropped to below $300. The biggest change was when our steel door was sprayed. Previously in cold weather it would build up frost on the inside surface — now it is warm to the touch. I cannot express my pleasure enough."
Dick Gibbs, Dick Gibbs Plumbing and Heating, Webster City, IA

TOTAL PROTECTION • THE ICYNENE INSULATION SYSTEM

ICYNENE®

Comparison of generic insulation materials

INSULATION THAT PERFORMS

IDEAL FOR STEEL CONSTRUCTION

Desirable Feature	Fiberglass Batts	Wet Sprayed Cellulose	Urethane Foam	Icynene Foam
Perfect fit every time				◆
Controls air leakage			◆	◆
Won't permit air convection inside walls		◆	◆	◆
Airborne moisture in walls dramatically reduced			◆	◆
Water damage won't reduce performance				◆
Won't wick or absorb water	◆			◆
Contains no formaldehyde		◆	◆	◆
Contains no ozone destroying gas	◆	◆		◆
Doesn't sag or settle over time in any application			◆	◆
Class 1 fire rated	◆	◆	◆	◆
Doesn't shrink	◆	◆		◆
Doesn't need time to dry	◆		◆	◆
No food value for insects	◆		◆	◆
Doesn't support mold growth			◆	◆
Can be injected into a closed cavity				◆
Performance won't decline with time	◆			◆
May meet Energy Star ® requirements unaided			◆	◆
Certified by Envirodesic™ Certification Program				◆
TOTAL PROTECTION	7	5	10	18

The Icynene Insulation System®

Evaluations and Approvals

B.O.C.A
I.C.B.O.
S.B.C.C.I.
N.E.S.
C.C.M.C

This is a summary of the product specification. Please ask for and read the full product specification before using.

Environmental Characteristics	
HFAs or HCFCs	none
Formaldehyde	none
Corrosiveness	negative
VOCs	none detectable
Flammability Characteristics	
Flame spread ASTM E84	<20
Smoke developed	<400
Fuel contribution	zero
Oxygen index	23
Physical Properties	
Density	0.5lb/cf
Thermal resistance	R-3.6/in
Heat flow resistance through 1.0″	72.7%
Heat flow resistance through 3.5″	92.2%
Heat flow resistance through 5.5″	95.0%
Heat flow resistance through 10.0″	97.3%
Air permeance - 5″	1.0 l/sM² @75pa
Vapor permeance - 5″	10 perms
Sound transmission class	37*
Noise reduction coefficient	70

*Can be increased by modifying wall design

CERTIFIED ENVIRODESIC™

Energy EPA DOE SAVING THE EARTH. SAVING YOUR MONEY.

Choose Icynene® and raise the value of your building investment.

For more information, contact your local Icynene dealer or call toll free 1-800-758-7325 or visit our web site at www.icynene.com

The Icynene Insulation System® is backed by a Limited Lifetime Warranty. A copy of the warranty is available upon request.

The Icynene Insulation System®

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Printed in Canada comm 11-98-R1