

About NAIMA

NAIMA is the association for North American manufacturers of fiber glass, rock wool, and slag wool insulation products. Its role is to promote energy efficiency and environmental preservation through the use of fiber glass, rock wool, and slag wool insulation, and to encourage the safe production and use of these materials.

NAIMA, continuing its members' commitment to safety, has established a renewed Product Stewardship Program, which embodies the components of the earlier OSHA-NAIMA Health and Safety Partnership Program (HSPP). The HSPP was a comprehensive eight-year partnership with OSHA, which NAIMA completed in May 2007, and now NAIMA incorporates these safe work practices into NAIMA's Product Stewardship Program.

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NAIMA Building Insulation Committee Members

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FiberTek Insulation • 925 South 4400 West • Salt Lake City, UT 84104
801-973-9423 • www.fibertekinsulation.com

Guardian Building Products, Inc. • P.O. Box 207 • Greenville, SC 29602
800-569-4262 • www.guardianbp.com

Johns Manville • P.O. Box 5108 • Denver, CO 80217
800-654-3103 • www.jm.com

Knauf Insulation • One Knauf Drive • Shelbyville, IN 46176
800-825-4434 • www.KnaufUSA.com

Owens Corning • One Owens Corning Parkway • Toledo, OH 43659
800-GET-PINK • www.owenscorning.com

Roxul, Inc. • 551 Harrop Drive • Milton, Ontario • Canada L9T 3H3
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Let's set the record straight

Get the facts on high performance fiber glass insulation systems for homes



Insulation, of any type, is no substitute for proper sealing and prevention of air infiltration.

“Skimming” the wall cavity with spray-applied insulation is not enough to stop all air infiltration.

Maximizing home insulation and minimizing air infiltration are two separate issues.

Spray foam insulation is NOT a one step solution to air leakage.

R-value is not a gauge for air infiltration – it does, however, measure how well insulation resists the flow of heat energy.



**INSULATION. KNOW THE FACTS
BEFORE YOU ACT.**

Fact: You can get high performance thermal envelope systems with fiber glass insulation.

Homes built with an effective air sealing package and properly insulated with fiber glass insulation deliver high thermal performance for a low installed cost.

Let's set the record straight

Creating an efficient thermal envelope air barrier is a two-step process.

First, the sill plates, band joists, penetrations, joints and any other areas where air infiltration might occur should be sealed and caulked. Only then are you ready to install the cavity insulation, such as fiber glass, mineral wool, cellulose or spray-applied foam insulation.

Research studies¹ have demonstrated that an effective air barrier is essential to achieving an efficient building envelope system regardless of insulation type.

Insulation, of any type, is no substitute for proper sealing and prevention of air infiltration.

¹ NAHB Research Center, "Effect of Insulation Type on Air Infiltration in North American Homes Summary of Existing Research," December 2006.



INSULATION. KNOW THE FACTS BEFORE YOU ACT.

Fact: Fiber glass insulation displays multiple environmental attributes.

Fiber glass insulation manufacturers have responded to the 'call for conservation' in many ways.

Fiber glass insulation is made from sand and recycled glass. Sand is a rapidly renewable and abundant resource.¹ Therefore its use in the production of fiber glass insulation does not impose significant impacts on a non-renewable natural resource. Recycled glass (plate, bottle glass, etc) is used as a secondary raw material in the production of fiber glass insulation. Today, fiber glass insulation manufacturers use up to 40% recycled glass or glass cullet. Fiber glass insulation is the second largest user of glass cullet.² This recycled glass waste is transformed into a product that saves energy and reduces pollution.

¹ Nelson R. Shaffer, "The Time of Sands: Quartz-rich Sand Deposits as a Renewable Resource," *University of Idaho's Electronic Green Journal*, Winter 2006.

² California Integrated Waste Management Board, "Market Status Report, Container & Plate Glass," www.CIWMb.ca.gov/markets/StatusReport.Glass.html, Chaz Miller, "Glass Containers," Wasteage.com/Recycling_And_Processing/Andwaste_glass_containers_4/.

Let's set the record straight

Air infiltration is an issue throughout the entire house.

An effective solution to achieve optimum thermal performance and minimal air leakage is to install fiber glass insulation with a continuous air barrier. The most cost-effective air barrier is a continuous layer of housewrap with the seams lapped and taped. Another method of air sealing is to spray a thin layer of spray foam insulation into the wall cavity, but this will not stop all air infiltration because testing has shown only about 14% of air infiltration occurs through the wall cavity.¹ It is important to use caulk, spray foam or some other durable material to seal all air leakage paths. Some common air leakage paths are under wall plates, at the band/rim joist and around plumbing and electrical penetrations in the building envelope.

¹ A Field Study of the Effect of Insulation Types on Air Tightening of Houses, G.K. Yuill, Ph.D., Penn State University, Jan. 1997.

"Skimming" the wall cavity with spray-applied insulation is not enough to stop all air infiltration.



INSULATION. KNOW THE FACTS BEFORE YOU ACT.

Fact: Fiber glass insulation provides more R-value alternatives.

Fiber glass batt and roll insulation products come in R-values ranging from R-13 to R-49. Fiber glass insulation can also be blown into walls and attics to nearly any R-value. With fiber glass insulation you have a greater range R-value alternatives, providing greater flexibility in meeting energy code requirements in your area.

Let's set the record straight

Insulation is primarily used to improve a home's thermal performance.

The bulk of resistance to air flow through walls comes from gypsum board (77%)¹ and sheathing, siding or house wrap (12%).¹ The balance comes from sealing the building envelope and pipes, ducts, and flues. These can be effectively sealed with caulks and other sealing measures.

Insulation was not designed to block air infiltration — not even spray-foam insulation. Insulation, in any form, is just one component of an integrated thermal performance system that also includes moisture control, proper ventilation and air sealing elements.

Maximizing home insulation and minimizing air infiltration are two separate issues.

¹A Field Study of the Effect of Insulation Types on Air Tightening of Houses, G.K. Yuill, Ph.D., Penn State University, Jan. 1997.



INSULATION. KNOW THE FACTS BEFORE YOU ACT.

Fact: Adding insulation to an existing home is easy with fiber glass insulation

Whether in a wall, floor, attic or ceiling, increasing the energy efficiency and comfort of your home is easy with fiber glass insulation. And, since R-values are cumulative, there is no need to remove what you already have. You can either blow in extra fiber glass insulation or add additional batts on top of the existing insulation and increase the R-value.

Let's set the record straight

Insulation should be used, first and foremost, as a thermal barrier.

While spray-foam insulation products can be used to fill gaps and voids, they are not always applied that way and don't always solve all air leakage problems. Achieving a continuous barrier with spray-foam insulation can be a very costly solution that may not be feasible if framing techniques keep some areas from being completely sealed. If your insulation provider is claiming that they provide a "one-step" solution, look again. For an effective solution to air infiltration and thermal performance, choose fiber glass batt, loose fill or spray-applied insulation with caulk, foam, taped building wrap, taped foam sheathing and/or gasket materials to stop air movement through and around external wall cavities. This is a proven, effective and cost efficient building practice.

Spray foam insulation is NOT a one step solution to air leakage.



INSULATION. KNOW THE FACTS BEFORE YOU ACT.

Fact: Fiber glass insulation is one of the most thoroughly tested building materials used in your home.

The value of scientific research regarding the health aspects of insulation materials cannot be overstated in relation to the safety of workers and the public. While other types of insulations have questions surrounding the health and safety aspects of their products, the weight of the scientific evidence compiled over more than seventy years by industry, government and independent research organizations supports the conclusion that fiber glass is safe to use when recommended work practices are followed.

Let's set the record straight

Any claim that insulation R-value can be discounted or enhanced due to air infiltration capabilities is false and misleading.

R-value was never intended to measure the complete thermal performance of a home. The Federal Trade Commission defines R-value as “the only quantifiable... measure of thermal resistance” to help consumers compare various insulation products that perform the same function.¹

There is no provision or language within the FTC R-value Rule that explicitly, implicitly or even slightly hints that there is “any performance yardstick suited” for measuring thermal performance other than R-value. Air infiltration and R-value are two separate and distinct issues.²

R-value is not a gauge for air infiltration – it does, however, measure how well insulation resists the flow of heat energy.

¹44 Fed. Reg. 50, 018, 50, 221 (August 27, 1979).

²Ibid.