



Case Study:

A CONTRACTOR PERSPECTIVE

When The Topic Is Performance.
The Focus Is Fiber Glass.

Why do so many major contractors choose fiber glass insulation to reach a RESNET Grade 1 install? It provides long-term value, optimum flexibility, and maximum safety and efficiency on the job. Here, three insulation contractors offer an up close look at their experiences and the many ways fiber glass insulation outperforms the competition.

Business Profiles

Installed Building Products (IBP) is among the largest insulation installation contractors in the United States, servicing the new construction residential market. Jeff Hire is President of External Affairs at IBP and has been in the industry for more than 30 years with senior leadership roles at a variety of major building materials manufacturers.

Intermountain West Insulation has been in business since 1980. The company serves markets in Eastern Washington State, Northern Idaho and Oregon. Their business is 55% new construction, 20-25% commercial, and 10% new homes with estimated annual revenues of \$2.5 to \$5 million. They insulate between 1500 – 2000 new homes annually. T. Dean Moody is the President.

Wisconsin Insulation Services is a family-owned company that has been providing residential and commercial insulation service and installation to southeast Wisconsin for more than 75 years. The original company was founded in 1936. Much of the company's business is in the custom and high-end market. President John Ratzow and his partner purchased the company 34 years ago.



R-Value Range		
INSULATION TYPE	2x4	2x6
FIBER GLASS BATT ²	R-13 to R-15	R-19 to R-23
FIBER GLASS BLOW-IN	R-13 to R-16	R-20 to R-25
MINERAL WOOL BATT ³	R-13 to R-15	R-22 to R-23
MINERAL WOOL BLOW-IN	R-14.5	R-23
CELLULOSE ^{*4}	R-12 to R-13	R-19 to R-20
SPRAY FOAM OPEN CELL ^{**5}	R-12 to R-13	R-19 to R-20
SPRAY FOAM CLOSED CELL ^{**5}	R-19 to R-22	R-32 to R-35

* Cellulose R-Values can be overstated due to potential settling over time.

** Spray foam R-Values assume full cavity installations, but full cavity installations with spray foam are difficult to achieve.

Talk About Performance

Simply put, fiber glass insulation is a thoroughly tested insulation product and a proven performer. It provides acoustical control, moisture and mold resistance and fire protection. What's more, contractors can achieve a RESNET Grade 1 wall with a proper installation and an air sealing solution.¹

Achieve Grade 1 Installation With Fiber Glass

"You can get a Grade 1 install with fiber glass, we do it every day" states John Ratzow, President of Wisconsin Insulation Services.

Ratzow, goes on to explain: "We act as a consultant to builders so they can make the best decision when it comes to how they insulate the homes they build. Nearly 100% of homes we install have some level of fiber glass insulation. More than 95% have fiber glass batts in the walls. If you seal the cavity, fiber glass performs at the same performance level as any other insulation type, including spray foam." Ratzow adds that acoustical control of fiber glass provides an opportunity to sell more.

While other, more costly, insulation alternatives have received attention in the marketplace, T. Dean Moody, President of Intermountain West Insulation, points out the overwhelming advantages of fiber glass for his business. "For builders who want to cost effectively meet codes and higher standards, fiber glass is the way to go. "I am a huge proponent of Grade 1 installation, and I am confident that I can achieve a Grade 1 install with fiber glass. What's more, innovations in fiber glass keep it relevant for new trends."

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– **John Ratzow**
President of Wisconsin
Insulation Services

INSTALLED COST

FIBER GLASS ACHIEVES AN R-13 AT UP TO \$1.42 LESS PER SQ. FT. THAN OTHER INSULATION TYPES⁶

FIBER GLASS
\$0.48 sq. ft.

← PROFIT OPPORTUNITY →

CELLULOSE
\$0.85 sq. ft.

SPRAY FOAM
\$1.90 sq. ft.

Value Versatility Speaks Volumes

Overall project value is a critical need for today's contractors and their builder clients. Fiber glass not only achieves an R-13 at up to \$1.42 less per sq. ft. than other insulation types⁷ it enables shorter installation time and provides a wide range of products.

IBP President of External Affairs Jeff Hire explains, "Fiber glass continues to be a great high-performance and cost-effective product for our projects, especially in the entry-level home building market, and in the multi-family housing space." Hire says. "Even some custom home builders recognize the flexibility and performance fiber glass can offer for their unique designs."

Wisconsin Insulation Services, President, John Ratzow sees fiber glass performance and costs favorably when compared to spray foam. "Spray foam is significantly more costly than fiber glass to get the same performance. Fiber glass is our product of choice because it is time tested, cost effective and can meet any performance level for our builders."

Ratzow explains that 95+% of the walls they fit include fiber glass batts. Of that 95%, probably 82 – 83% are R-21 batts. "Virtually all of the walls are 2 x 6 construction, driven by the emerging trend around energy efficiency" he notes.

Dean Moody concurs. "Spray foam is much more expensive than fiber glass. Fiber glass is our product of choice, we use fiber glass nearly 99% of the time on homes we insulate."

Less Downtime. Quicker Installation. Greater Flexibility.

Product cost isn't the only factor in the value equation. Jobsite efficiency, quicker turnaround during installation and product flexibility are critical in today's ever evolving industry dynamics. Fiber glass installation requires no machinery or downtime and keeps the jobsite more efficient for maximum productivity and a better bottom line.

T. Dean Moody elaborates. "For builders that want to keep tight schedules, fiber glass is the way to go. Spray foam is very labor intensive, fiber glass is more efficient."

John Ratzow adds, "Spray foam is as much art as it is science – temperatures have to be correct, humidity and dew point have to be taken into account – it's easy to mess it up. And you need an extremely talented person to install it correctly. It takes at least two times longer to install spray foam compared to fiber glass, for the builder it could be even longer because of the re-entry time requirement. There is a lot of training and maintenance required for spray foam equipment, before, during and after installation."

Ratzow explains that Wisconsin Insulation Services does very few full-cavity spray foam jobs and when they do it's only for very high end projects. He added that they only use closed cell foam because he has concerns with open cell foam and the effect of climate and vapor on the sheathing.



A Word On Safety and Sustainability

Over twenty years, fiber glass installed in a single-family home saves one hundred times the energy it takes to manufacture it.⁷

The majority of fiber glass products contain no added formaldehyde, and many are also certified by a third party program such as GREENGUARD Gold Certification or the Scientific Certifications System's (SCS) Indoor Advantage Gold Certification. Moreover, unfaced fiber glass batts and fiber glass loose fill do not contain chemical fire retardants required in other insulation types; and installing fiber glass requires no special personal safety equipment.⁸

According to Moody "Personally and professionally the fact that there is recycled content in fiber glass is fantastic. Being conscious of renewable resources - customers appreciate that. You have to be very careful with spray foam. We are seeing more regulations. As popularity increases, so will regulations."

Ratzow adds, "fiber glass has been tested for many years and proven safe. With spray foam there are a lot of chemicals that need to be managed during the installation process. Cellulose has a product that is highly flammable, so you have to add stuff to it to take that risk away."

Why Fiber Glass Remains The Product Of Choice For Grade 1 Installation

The case for fiber glass performance, value, flexibility and safety is clear. Fiber glass not only allows contractors to achieve a Grade 1 wall with a proper installation and an air sealing solution¹ –it offers a range of products, ensures installation speed and flexibility, and provides thermal efficiency and cost savings—making it the ideal option for today's home builders and home owners.

Perhaps Jeff Hire sums it up best when he explains, "Many builders that IBP works with are focused on delivering well performing, cost-effective, and comfortable homes. With so many insulation products to consider, it's easy for builders and homeowners to get confused. For the insulation category, builders tell us what they need to accomplish based on local code requirements and their energy efficiency goals for the home. Because of its versatility, cost-effectiveness, and the ease of installation, fiber glass is one of our go-to products."

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President of External Affairs
IBP

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NAIMA
NORTH AMERICAN INSULATION
MANUFACTURERS ASSOCIATION

¹ "Achieving Grade 1 Insulation With Fiber Glass Batt," prepared by Advanced Energy for Owens Corning

² Thermal performance ranges for fiber glass batt insulation in 2"x4" and 2"x6" walls found in manufacturers' data and submittal sheets (2008, 2009)

³ Thermal performance ranges for rock wool and slag wool insulation in 2"x4" and 2"x6" walls found in manufacturers' data and submittal sheets. (2008, 2009)

⁴ Thermal performance ranges for cellulose blown-in insulation. www.southface.org/web/resources&services/publications/factsheets/12insulation.pdf

⁵ Thermal performance ranges for open and closed cell foam spray-in insulation for 2"x4" and 2"x6" walls found in manufacturers' data and submittal sheets (2009). In addition, calculations made by taking the R-Value per inch value that is contained in the ASHRAE Handbook of Fundamentals, page 25.6 - 2005 edition. R-Value table from www.coloradoenergy.org/procorner/stuff/r-values.htm

⁶ Cost per sq. ft. installed at 3.5" thickness based on NAHB report "Air Infiltration of Wood Frame Walls," NAHB Research Center, p. 10. May 2009

⁷ "Green and Competitive: The Energy, Environmental, and Economic Benefits of Fiber Glass and Mineral Wool Insulation Products," Energy Conservation Management; The Alliance to Save Energy and Barakat & Chamberlin, 1996

⁸ EPA, OSHA and NIOSH have recently elevated safety concerns with spray foam insulation related to worker and jobsite exposure, as well as ongoing chemical exposure to building occupants. Environmental News Service, April 16, 2011 "EPA Considers Ban on Dangerous Chemicals in Spray Foam Insulation"

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