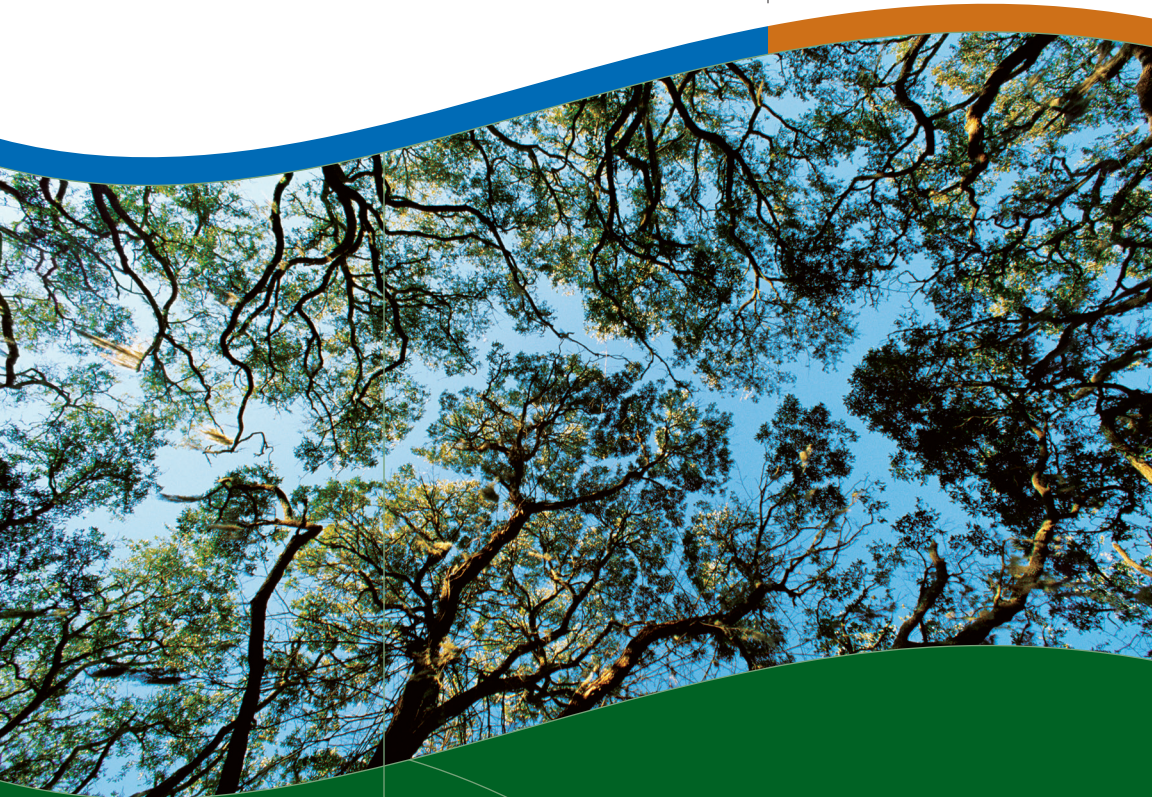




Johns Manville

Formaldehyde-free™ Fiber Glass Insulation



Johns Manville insulation—
a sustainable choice.



Our pledge to environmental stewardship.

At Johns Manville, we are more than insulation. We are energy conservation. We are resource conservation. We are concerned about indoor air quality and the health and well-being of our customers. We strive to be responsible stewards of the environment. We are committed to building a better tomorrow for future generations.

In the pages that follow, you will see how our fiber glass insulation helps with energy efficiency, indoor air quality, outdoor air quality, glass recycling programs, sustainable building and slowing global climate change.

FIBER GLASS INSULATION SAVES ENERGY AND REDUCES GREENHOUSE GAS EMISSIONS.

Conserving energy is the best way to combat global climate change. But what's the most effective way to reduce energy consumption? Since homes and commercial buildings use more than 40 percent of all energy in the United States¹, energy efficiency begins, literally, at home. This matter is made more urgent by the fact that 20 percent of the energy a home or building uses is either lost or wasted².

That's where fiber glass comes in. Used to insulate more than 80 percent of new homes in America, it is the overwhelming choice of building contractors over other types of insulation because it delivers excellent thermal performance. It can also be added to existing homes to increase their energy efficiency.

Fiber glass insulation delivers benefits that go beyond keeping your house cool in summer, warm in winter and lowering your energy bills.





- **Reducing energy consumption reduces carbon dioxide and other greenhouse gas emissions. The North American Insulation Manufacturers Association (NAIMA) estimates that insulated buildings in the United States reduce carbon dioxide emissions by 780 million tons annually.³**
- **Properly insulating homes worldwide would reduce the amount of carbon dioxide in the atmosphere by approximately 600 million tons annually.⁴**

PROPER INSULATION PROMOTES BETTER HEALTH UNIVERSALLY.

When buildings are adequately insulated, it takes less energy to heat and cool them. That reduces the demand on power plants so that they burn less fuel and release fewer contaminants into the air. Cleaner air leads to an overall healthier population. According to two studies done by Harvard University's School of Public Health,⁵ if all single-family homes in the United States were adequately insulated, each year there would be:

- **240 fewer premature deaths**
- **6,500 fewer asthma attacks**
- **110,000 fewer restricted-activity days per year**

Recycling is key.

Each year we use more than 90,000 tons of recycled glass to make JM fiber glass insulation.

Recycling is crucial to caring for the environment. Corporations have a responsibility to be accountable stewards of the environment, and recycling is imperative to any environmental stewardship program.

HIGH RECYCLED CONTENT.

Certified by an independent testing laboratory (Scientific Certification Systems), many of our insulation products contain a North American average of 25 percent recycled glass content, with at least 20 percent being post-consumer glass. Using post-consumer materials ensures that the greatest amount of waste possible is diverted from landfills. On the other hand, using post-industrial waste in manufacturing is standard practice for cost-conscious producers. By maximizing the use of post-consumer waste, we help alleviate pressure on landfills and encourage curbside glass recycling programs.

MADE FROM A SUSTAINABLE SOURCE.

We strive to use as much recycled glass as possible in our insulation. In addition to recycled glass, fiber glass insulation contains a rapidly replenishing resource: sand. This naturally occurring material is, and always will be, in abundant supply.



U.S. insulation manufacturers use almost 4.2 billion pounds of recycled materials each year—and the use of recycled content is growing. Use of recycled glass has more than doubled since 2005².



GLASS RECYCLING IS A NATURAL FOR FIBER GLASS INSULATION MANUFACTURERS.

The manufacturing of fiber glass insulation provides an excellent opportunity to recycle glass. In fact, the Glass Packaging Institute reports that fiber glass insulation is the largest secondary market for recycled glass containers, and using recycled glass in fiber glass insulation saves more than 27 million cubic feet of landfill space per year.³

OTHER REASONS TO CHOOSE FIBER GLASS INSULATION:

- **In the first year, fiber glass insulation saves 12 times the amount of energy used to make it.**
- **Fiber glass batts can be reused when a building is remodeled or demolished.**
- **It's highly compressed when packaged, requiring less plastic wrap and less space while in transit, which reduces fuel demands.**

Cutting out formaldehyde promotes healthier air indoors and out.

The California Air Resources Board (CARB), a division of the California Environmental Protection Agency, recommends that homeowners, builders and architects use building materials made without formaldehyde when building a home or remodeling.⁷

In 2002, we eliminated formaldehyde from our fiber glass building insulation. Now JM manufactures a complete line of certified Formaldehyde-free™ fiber glass building insulation.

Reducing overall formaldehyde levels creates a healthier, safer living environment. Choosing JM Formaldehyde-free™ insulation helps achieve that goal.

OUR PLANTS ARE NOT SUBJECT TO U.S. ENVIRONMENTAL PROTECTION AGENCY REGULATIONS.

Because we've removed formaldehyde from our fiber glass insulation, we've eliminated binder-related formaldehyde emissions during manufacturing. Our fiber glass manufacturing plants are not subject to U.S. EPA Hazardous Air Pollutant regulations.





“It is best to limit ... exposure [to formaldehyde] as much as possible.”

U.S. EPA, commenting on LEED New Construction Version 2.2, Draft Standard for Indoor Environmental Quality



BUILDERS CAN BE REWARDED FOR SPECIFYING JM INSULATION.

Building with JM Formaldehyde-free™ insulation contributes to prerequisite and point opportunities with:

- **U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED®) programs**
- **National Institute of Standards and Technology's Building for Environmental and Economic Sustainability (BEES 3.0) program**
- **U.S. Army Corps of Engineers' Sustainable Project Rating Tool (SPiRiT) program**
- **NAHB National Green Building Standard Rating System Certification**

MAKE A DECISION THAT MAKES A WORLD OF DIFFERENCE.

Choosing JM fiber glass insulation is an easy way to build sustainably and help protect the environment. We all play a role in building the future, in North America and around the world. As the global demand for energy continues to grow, the importance of energy conservation and recycling becomes even more critical.

When you use JM fiber glass insulation, you have a positive impact on the health of the planet. And that makes a world of difference.

1. U.S. Department of Energy, Efficiency and Renewable Energy, October 2008.
2. *New York Times*, April 6, 2008, source cited: Lawrence Livermore National Laboratory.
3. NAIMA, "Using Recycled Materials Is Just the First Step Toward Safeguarding the Environment – Assessing the Environmental Benefits of Fiber Glass and Slag Wool Insulation."
4. NAIMA, "Energy Efficiency Through Insulation: The Impact on Global Climate Change?"
5. "The Public Health Benefits of Insulation Retrofits in Existing Housing in the United States," Department of Environmental Health, Harvard School of Public Health; Boston, MA; prepared by Jonathan Levy, Yurika Nishioka and John Spengler.
6. NAIMA press release, Sept. 17, 2008, "Manufacturers Used Almost 5 Billion Pounds of Recycled Materials in the Production of Fiberglass and Slag Wool Insulation."
7. CARB, Indoor Air Quality Guidelines, August 2004, "Formaldehyde in the Home"



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Better Living
from the Inside Out®

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