



Formaldehyde-free™ Fiber Glass Insulation



Certified JM Formaldehyde-free™
insulation for a healthier, safer home.



Fiber glass insulation and formaldehyde.

WHAT IS FORMALDEHYDE?

Formaldehyde is a colorless gas with a distinct smell. It's used to make resins, which are adhesives in wood products such as beams, flooring, plywood and cabinets. Formaldehyde is in fabrics, carpeting, antiseptics, medicines, cosmetics and many other products. And some manufacturers choose to use a formaldehyde-based adhesive in their fiber glass insulation—not Johns Manville.

COMMON SOURCES OF FORMALDEHYDE IN THE HOME.



The U.S. Environmental Protection Agency recommends limiting exposure to formaldehyde as much as possible.

Source: Environmental Protection Agency.

HOW AM I EXPOSED TO FORMALDEHYDE IN MY HOME?

The products in your home that contain formaldehyde can give it off as a gas. The formaldehyde gas mixes with the air. Exposure occurs mainly as you breathe. You also absorb a smaller amount through your skin.

LESS FORMALDEHYDE MEANS A HEALTHIER LIVING ENVIRONMENT.

More and more, regulatory agencies recommend that you reduce your overall exposure to formaldehyde. Governmental regulators, health research organizations, architects, specifiers, builders and consumers alike are concerned about how formaldehyde affects indoor air quality and health.

JM MAKES A COMPLETE LINE OF CERTIFIED FORMALDEHYDE-FREE™ FIBER GLASS BUILDING INSULATION.

Other insulation manufacturers put formaldehyde in the adhesive, or binder, that is used to hold the glass fibers together; we use an acrylic binder instead. In fact, JM has a complete line of bonded fiber glass building insulation made without formaldehyde. That means formaldehyde won't escape from our insulation into the air you breathe. Formaldehyde is added to so many other products, it makes sense to use products without it whenever possible.



PLYWOOD ●

FURNITURE ●

CARPET ●

JM Formaldehyde-free™ insulation has a reputation for safety.



Johns Manville is a recipient of the Home Safety Council's Commendation Award for Product Innovation for Consumer Safety for JM Formaldehyde-free™ Fiber Glass Building Insulation. Use of the Commendation Seal next to the product indicates that the Council has evaluated JM Formaldehyde-free™ Fiber Glass Building Insulation based upon information furnished by the manufacturer and believes the product demonstrates an innovative use of safety features. The Council does not test or endorse any products.

WINNER OF THE HOME SAFETY COUNCIL 2006 COMMENDATION AWARD.

The Home Safety Council's Commendation Award for Consumer Safety was established in 2004 to acknowledge manufacturers for developing innovative products that improve consumer safety. In June 2006, Johns Manville received a Commendation Award for Product Innovation for Consumer Safety for JM Formaldehyde-free™ Fiber Glass Building Insulation. The Home Safety Council wrote that JM's "home safety product innovations ... demonstrate a clear commitment to health and safety."¹

OUR INSULATION PASSES NORTH AMERICA'S TOUGHEST AIR QUALITY TEST.

The complete line of JM Formaldehyde-free™ building insulation products has been tested by an independent, nationally recognized laboratory to determine emissions of toxic volatile organic chemicals (VOCs) of concern, including formaldehyde. Not only did our products pass Environmental Specification 1350—the nation's toughest indoor air quality test for classrooms—no formaldehyde or other VOCs were detected.²



Tips to reduce your risk of exposure to formaldehyde in the home:

- *Use materials made without formaldehyde*
- *Open windows and use fans to bring in fresh air*
- *Don't smoke*
- *Wash new permanent press clothing before wearing*
- *Seal unfinished manufactured wood surfaces*

Source: Agency for Toxic Substances and Disease Registry, CARB.



FORMALDEHYDE-FREE™ VERSUS GREENGUARD CERTIFICATION.

JM's complete line of residential fiber glass insulation is made without formaldehyde. In response to Johns Manville's innovation, many manufacturers have obtained Greenguard certification. Greenguard "low-emitting" certification merely indicates that the formaldehyde emissions from the product meet 50 parts per billion in an office environment. Greenguard's "Children and Schools" certification indicates only that the formaldehyde emissions from the product meet 13.5 parts per billion in a classroom environment.

Neither Greenguard program is intended or appropriate for residential environments, which have much lower fresh air ventilation rates and hence higher formaldehyde concentrations for a given product emission rate. Not all health and environmental professionals agree that these formaldehyde guidelines are adequately protective. One thing we do know is that you can make your home or office healthier and safer if you reduce your overall exposure to formaldehyde; and using JM Formaldehyde-free™ insulation is one way to do that.

Why should I be concerned about formaldehyde in insulation?



When given the choice, 89 percent of homeowners prefer building materials made without formaldehyde and 79 percent would pay a premium for it.

FORMALDEHYDE AND INDOOR AIR.

There is a growing concern over the potential health effects of exposure to VOCs. VOCs are chemicals—including formaldehyde—that can cause health problems.

The California Air Resources Board (CARB), a division of California's Environmental Protection Agency, found that the air in most homes contains too much formaldehyde.² In August 2004, in response to health concerns about formaldehyde, CARB recommended that homeowners, builders and architects use building materials made without formaldehyde when building or remodeling a home.³ CARB notes that removing or reducing formaldehyde sources in your home will reduce the risks to your health. One step CARB recommends: use insulation made without formaldehyde.⁴

U.S. EPA: MINIMIZE YOUR FORMALDEHYDE EXPOSURE.

In comments to the U.S. Green Building Council on LEED-NC v2.2, the U.S. EPA recommended that people should minimize their exposure to formaldehyde. JM's Formaldehyde-free™ fiber glass building insulation is one way you can follow the U.S. EPA's advice.

**PEOPLE WANT
PRODUCTS
MADE WITHOUT
FORMALDEHYDE.**

FORMALDEHYDE IS AN ALLERGEN.

Formaldehyde can also cause skin problems. In March 2006, the Mayo Clinic listed formaldehyde as one of the 10 most common skin allergens.⁵

FORMALDEHYDE MAY TRIGGER ASTHMA.

There is evidence that formaldehyde can cause asthma⁶ in people who are exposed to it in the workplace, a condition called occupational asthma. The American Academy of Allergy, Asthma & Immunology lists it as a common substance that can cause occupational asthma in hospital staffs.⁷ The medical community agrees that it can also trigger or worsen asthma attacks.



JM works to help the environment,
indoors and out.

A TWO-FOLD MISSION.

Our insulation promotes a healthier and safer indoor environment. But we care about the outdoors, too. Here's how we constantly strive to be good stewards of the environment, to help make the air cleaner and to conserve our natural resources.

REMOVING FORMALDEHYDE REDUCES AIR POLLUTION.

Because we've removed formaldehyde from our insulation, we've eliminated binder-related formaldehyde emissions during manufacturing. As a result, our plants that make fiber glass insulation without formaldehyde are not subject to U.S. EPA Hazardous Air Pollutant regulations. In addition, our pollution prevention measures have reduced annual hazardous emissions by more than 200,000 pounds per year.

HIGH RECYCLED CONTENT.

We incorporate an average of 25 percent recycled content in North America—at least 20 percent bottle glass from curbside recycling programs and the remainder from post-industrial glass.⁸

Using post-consumer recycled glass ensures that we divert as much waste as possible from landfills and encourages community recycling programs.

ADEQUATE INSULATION CAN CONSERVE ENERGY, REDUCE EMISSIONS AND PROMOTE HEALTH.

Harvard University's School of Public Health explored what would happen if the 46 million inadequately insulated single-family homes in the United States were insulated to meet the 2000 International Energy Conservation Code levels. The results? The country would use less energy to heat and cool homes, which means a reduction in power plant emissions. Lower emissions would mean less pollution and cleaner air. Specifically, cleaner air would result in 240 fewer premature deaths, 6,500 fewer asthma attacks and 110,000 fewer restricted-activity days per year.⁹

JM MEETS THE TOUGHER ENVIRONMENT CANADA REQUIREMENTS.



For years, Environment Canada's Environmental Choice™ Program (ECP) EcoLogo™ has been awarded to environmentally responsible products and services. Traditionally, the EcoLogo requirements for thermal insulation focused largely on recycled content. But in January 2006 ECP tightened its requirements, so in addition to appropriate levels of recycled content, only bonded fiber glass building insulation made without formaldehyde could earn the EcoLogo. JM Formaldehyde-free™ fiber glass insulation meets these more stringent rules.

JM LEADS THE WAY IN HEALTH, SAFETY AND QUALITY.



JM Formaldehyde-free™ fiber glass insulation delivers superior thermal and acoustical performance and improves indoor air quality for the life of your home. We care about the health and well-being of those in the buildings we insulate. That's what motivates us to develop innovative new products that make buildings more comfortable, safer and healthier for those inside. We removed formaldehyde from our insulation because it was the smart and responsible thing to do.

Products that offer superior thermal and acoustical performance. Without formaldehyde.



JM SPIDER® FIBER GLASS INSULATION

JM Spider insulation sprays in to give you superior energy efficiency and noise control.



COMFORTTHERM® PLASTIC-WRAPPED INSULATION

Wrapped in plastic for less itch, less dust and a more comfortable installation.



MR® FACED MOLD-RESISTANT INSULATION

Ideal for protecting insulation from mold and mildew damage, it has a U.S. EPA-registered mold and mildew inhibitor in the facing.



EASYFIT® PERFORATED, PRE-CUT INSULATION

Fast and easy to install because it tears to fit narrow widths—without cutting.



CLIMATE PRO® AND ATTIC PROTECTOR® BLOW-IN FIBER GLASS INSULATION

Fast, complete coverage in attics and walls.



KRAFT-FACED FIBER GLASS INSULATION

Lightweight and resilient with built-in moisture protection.



UNFACED FIBER GLASS INSULATION

Ideal for remodeling projects; use alone or with a separate vapor retarder.



1. Home Safety Council http://www.homesafetycouncil.org/media/media_w087.aspx.
2. Note: ES-1350 tests products for classrooms, not residential environments.
3. CARB, Indoor Air Quality Guideline, August 2004, "Formaldehyde in the Home"
See www.arb.ca.gov/research/indoor/formaldehyde.htm.
4. See: <http://www.arb.ca.gov/research/indoor/formaldehyde08-04.pdf>.
5. Top Ten Contact Dermatitis Allergens Identified in Mayo Clinic Study.
See www.mayoclinic.org/news2006-rst/3268.html.
6. Malo JL, Bernstein IL. Other Chemical Substances Causing Occupational Asthma. In: Bernstein IL, Chan-Yeung M, Malo JL, Bernstein DI, eds. "Asthma in the Workplace." New York, Marcel Dekker. 1993; pp. 481-502.
7. "Tips to Remember: Occupational Asthma," American Academy of Allergy, Asthma & Immunology. See www.aaaai.org/patients/publicedmat/tips/occupationalasthma.stm.
8. Recycled content is certified by Scientific Certification Systems.
9. "Integrating Risk Assessment and Life Cycle Assessment: A Case Study of Insulation," Harvard School of Public Health, Department of Environmental Health; Boston, MA; Prepared by Yurika Nishioka, Jonathan Levy, Gregory Norris, Andrew Wilson, Patrick Hofstetter and John Spengler. See www.naima.org.



Printed on recycled paper.



Better Living
from the Inside Out®

**Johns Manville
Insulation Systems**

717 17th Street
Denver, CO 80202
(800) 654-3103

specJM.com

JMhomeowner.com

BID-0094 03/12 (Replaces 02/11)
© 2012 Johns Manville. Printed in USA.