



The Benefits of Blown-In Fiberglass Insulation

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An Upward Trend in Usage

A well-insulated home is essential for homeowner comfort, and ultimately—building performance. Blown-in fiberglass insulation, also known as loose fill insulation, is among the most common insulation type used in residential construction and accounts for 19 percent of insulation used today.¹ The use of blown-in fiberglass in home construction and remodeling has increased significantly over the past several years. More stringent energy efficiency codes, ease of installation, as well as a safety and health profile over other insulation types have all contributed to the growth of blown-in insulation.

¹ https://www.homeinnovation.com/trends_and_reports/trends/insulation_choices_revealed_in_new_study



Maintain Blowing Insulation Equipment Properly

The performance of blown-in insulation can be optimized by proper equipment use and maintenance to ensure each install is performing at the highest level. Simple tricks such as using new hoses as opposed to old ones and rotating them every three months can help to improve coverage and maximize efficiency.

Stellar Safety Record

Fiberglass is the most thoroughly tested insulation product on the market. Other insulation types have limited or no known health and safety testing. Blown-in fiberglass insulation is safe to use and to install and when recommended installation and handling practices are followed. *A Guide to Healthier Upgrade Materials*, a report issued by the nonprofit organization Energy Efficiency for All, in partnership with the Natural Resources Defense Council and the Healthy Building Network, also recommends blown-in fiberglass insulation as one of the best insulation materials from a health perspective.²

Additional Safety Benefits of Blown-In Fiberglass Insulation:

- Residential fiberglass insulation products made in the United States or Canada contain zero formaldehyde in the binder.
- Blown-in fiberglass residential insulation does not contain any isocyanates. Isocyanates are chemicals found in other insulation types that can cause headaches, dizziness, and eye, nose, and throat irritation.
- Blown-in fiberglass does not cause an allergic reaction. Asthma is caused by immune system reactions in the airways to allergens, such as animal dander, certain volatile organic compounds (VOCs), and mold. Studies have shown that exposure to glass fibers does not cause asthma. Moreover, some fiberglass insulation products have received asthma-friendly certification by the Asthma and Allergy Foundation of America.³

- Increasingly, commercial builders are insulating mid-floor with blown-in insulation to create a sound barrier and prevent air from escaping.
- Blown-in fiberglass insulation is naturally mold-resistant due to its inorganic material make-up. Many other products contain organic materials—which can be a source for moisture and food for mold spores.
- Installing blown-in fiberglass insulation requires minimal safety equipment, only gloves, protective eyewear, and a recommended dust mask.

² https://assets.ctfassets.net/ntcn17ss1ow9/5enzn1YjM0Md8PW2ucdWtx/a5be5b5a082a02c7d34af1bb96d1b689/NRDC-3084_Guide_to_Healthier_Retrofit_ES_single.pdf

³ https://www.asthmaandallergyfriendly.com/USA/products_categories/insulation/





Ideal for Complex Spaces

Blown-in fiberglass insulation can be used in a variety of locations throughout a home — including attic spaces or closed cavity applications, such as those found inside walls or covered attic floors. In all applications, to achieve the correct R-value, it is extremely important that the proper weight and thickness of materials be installed.

Easy to Install

In both new and retrofit jobs, blown-in insulation offers ease of installation. With little training, even novice insulation contractors can install to RESNET Grade I specifications. *See our Grade I Insulation Installation [online training program](#).*

Installing Blown-In Insulation Does Not Require:

- Full body personal protective equipment
- Evacuation of the building or area of installation
- On-site mixing of chemicals

Negligible to No Settling

Home Innovation Research Labs conducted testing on the performance of blown-in fiberglass wall insulation and determined that the insulation shows negligible to no signs of settling in the tested wall cavities.⁴ The wall constructed for the testing included a standard metal, clad, exterior residential door that underwent 65,700 close cycles — the approximate number of times a typical door would be closed over a period of 60 years.

Proven Thermal Performance

Blown-in fiberglass insulation has been shown in manufacturer tests to perform at or even above labeled R-value at all temperatures — down to as low as -40°.⁵

⁴ <https://insulationinstitute.org/wp-content/uploads/2016/03/2-NAIMA-Wall-Insulation-Settling-fiber-glass-blown-18NOV2015-FINAL.pdf>

⁵ <https://www.energyvanguard.com/blog/does-fiberglass-attic-insulation-really-lose-r-value/>





Determining the Proper Amount of Blown-In Insulation

The thermal resistance (R-value) of blown-in insulation is dependent on the proper application of the required quantity of material. One of the most significant criteria for achieving the desired R-value is meeting the designated minimum weight per square foot of material. It is also important that at least the minimum thickness be achieved, since this — along with the required weight per square foot of material — is essential to obtain the desired R-value. The correct value for coverage will appear on the product manufacturer's bag label.

Before blown-in insulation is installed, the area to be insulated is measured. Framing adjustments may be permissible in determining the net isolatable area. From these calculations, the required number of bags or pounds of insulation is determined from the bag label.

A Standard in Zero Energy Ready and Passive House Builds

Blown-in fiberglass insulation is used in high-performance, energy-efficient construction including Net Zero Energy and Passive House construction. When used in conjunction with superior air sealing, blown-in insulation can help homeowners save up to 15 percent on heating and cooling energy costs.⁶

Non-Combustible

Blown-in fiberglass insulation is made of glass that is spun into tiny fibers. Glass is naturally non-combustible and does not involve treatment with chemical additives to prevent combustion, as some other types of insulation require. ASTM E136 flammability testing shows that blown-in fiberglass insulation does not ignite — unlike other forms of insulation.

Sound Absorbing

Soundproofing experts often recommend insulating exterior walls, interior walls, and ceilings to reduce noise transmission, echo, and feedback within all rooms of a home.⁷

In fact, building codes don't require that insulation be installed in interior walls, however, experts at Acoustical Solutions — a Richmond, Virginia based acoustical company — note that a cost-effective way to achieve better acoustical performance at home is insulating interior walls with fiberglass batt insulation or blown-in fiberglass insulation.⁸

⁶ Savings vary depending on the location and weather conditions. Calculations of energy savings are based on a 1700-square-foot, single-story home, with base case insulation and air leakage levels equivalent to the average home built in 1965. Reference data sources include the U.S. Department of Commerce and the Lawrence Berkley National Laboratory (LBL) "Energy Savers Program." A summary of the calculation details is available upon request.

⁷ <https://betersoundproofing.com/best-soundproofing-insulation/>

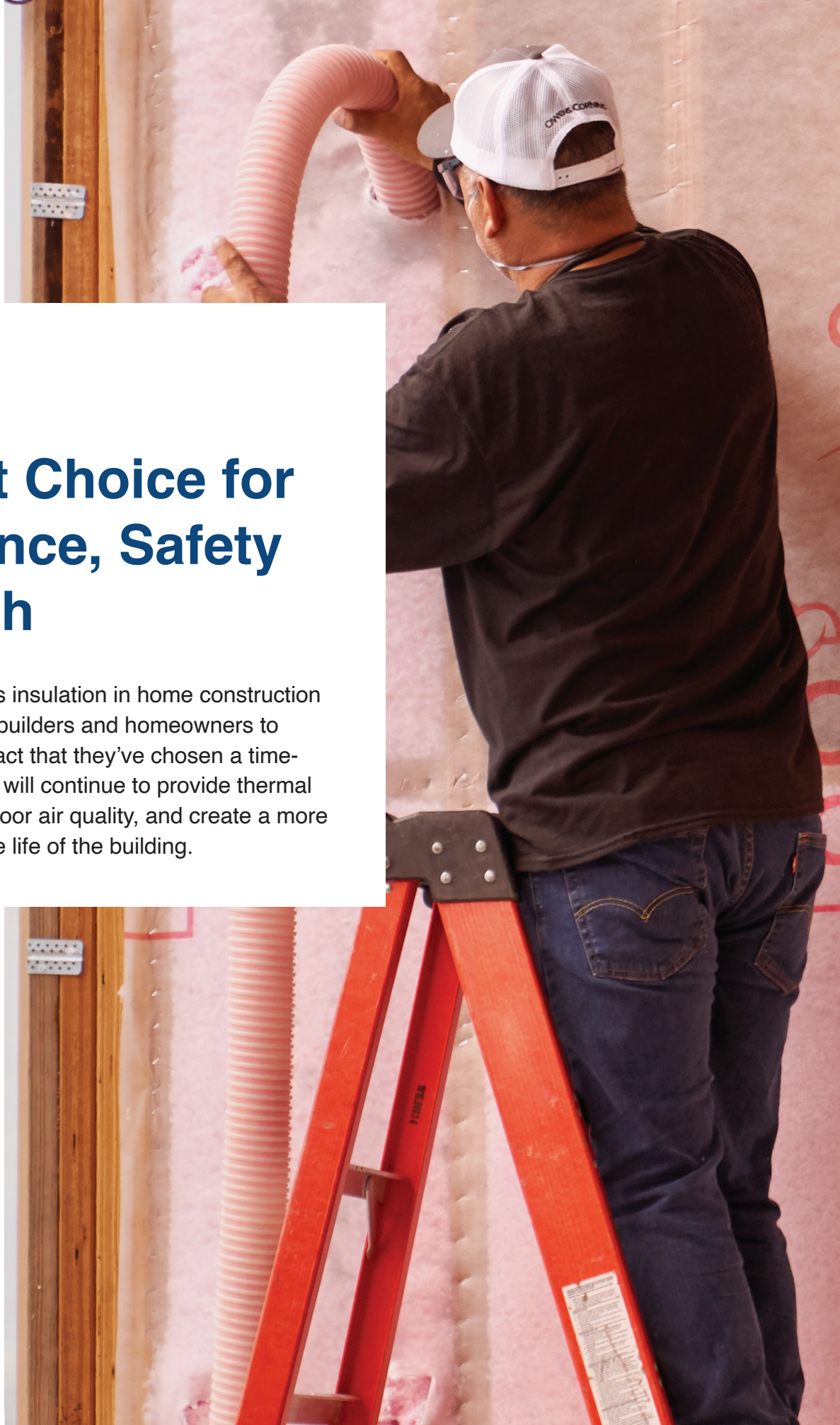
⁸ <https://insulationinstitute.org/wp-content/uploads/2021/04/N139.pdf>





The Right Choice for Performance, Safety and Health

Using blown-in fiberglass insulation in home construction and renovation enables builders and homeowners to have confidence in the fact that they've chosen a time-tested, safe product that will continue to provide thermal performance, protect indoor air quality, and create a more comfortable home for the life of the building.



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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. Through the Insulation Institute™, we leverage the collective insulation expertise of our organization and our members to empower homeowners and professionals to make informed insulation choices. Our mission is to enable a more comfortable, energy-efficient and sustainable future through insulation — and we are constantly working with building professionals, homeowners, government agencies, and public interest, energy and environmental groups to realize that vision.

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