



SPF TERMINOLOGY

Spray Polyurethane Foam

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Air Seal: An air seal is literally a seal that prevents the passage of air and vapor. An air seal created by foam insulation works to block air movement into and out of your home.

Blower Door Test: A blower door test is done to test how air tight your home is using a special fan called a blower door. The blower door is a powerful fan that is mounted to the frame of an exterior door of your home. It pulls air out of the house, lowering the air pressure inside. If there are air leaks in your home, this test makes sure the higher outdoor air pressure finds its way in through those leaks.

BPI Certification: Building Performance Institute (BPI) offers certifications and standards, as well as programs like BPI GoldStar Contractor, Rater, and Product Listing. BPI is the source for certified contractors working on home energy efficiency, comfort, durability, health, and safety.

Building Envelope: A building envelope is defined as part of the structure that separates the outdoor environment from the inside of your home. The building envelope surrounds your living space separating it from unconditioned spaces and the outdoors. When you air seal your home, it's like an actual envelope. The foam is sealing the envelope to keep the contents inside safely.

Cellulose Insulation: Cellulose insulation is the oldest form of home insulation. It can be made of either recycled newspaper or denim and is found as either a loose-fill or blown-in insulation.

Closed-Cell Spray Foam Insulation: Closed-cell spray foam is a spray-applied plastic that forms into a continuous insulation and air seal in open cavities in homes and in pole barns. Closed-cell has a low expansion rate, is dense, and doesn't allow moisture to move through it.

Continuous Insulation: Continuous insulation, just like the name implies, is continuous insulation that spans the structure without thermal bridging. An example of continuous insulation would be house wrap.

Energy Audit: An energy audit is done to determine the energy efficiency of a home. This can be done as either a DIY energy audit, assessments from energy providers, or professional BPI certified auditors.

Fiberglass Insulation: Fiberglass insulation is made of extremely fine glass fibers and is found in most homes. Fiberglass insulation can be found in either batts or loose-fill.

Fire Rating: The fire rating system for insulation is basically how long the material can withstand a standard fire resistance test. The Class 1 Fire Rating definition is the flame spread index and smoke development index, which means how fast a flame will spread when introduced to the material and how much smoke it produces.

Firestop: A firestop is a horizontal wall in a wall cavity that is designed to maintain the fireproofing of a wall assembly allowing it to impede the spread of fire and smoke.

Flash and Batt: Flash and batt is spray foam insulation with fiberglass batts. It's a technique used by some insulation contractors where a flash of closed-cell spray foam at 1" to 2" is applied in an effort to create an air seal and then puts fiberglass batt insulation over it. It's typically done in walls.



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Froth Pack: A froth pack, or DIY spray foam kit, is a low-pressure polyurethane spray foam. They come in various sizes and are usually a two-component quick set foam kit that come with foam, hoses, spray gun, and extra nozzles. These DIY spray foam kits can be used to create an air seal in areas of your home if the foam is applied correctly.

HERS Index: The Home Energy Rating System (HERS) Index is a test used to measure a home's energy efficiency. It's also recognized as a system for inspecting and calculating a home's energy performance.

High-Pressure Foam Insulation: High-pressure spray foam is the insulation material used by experienced contractors, because to create that high pressure for the hose and the gun, the system is run out of a truck with a generator where the foam is mixed in a proportioner. This professional machine is only used by experienced contractors to ensure the spray foam is mixed properly.

Home Performance: Home performance is when all of the systems in your home work together to create the most comfortable, efficient living space.

Hot Roof: The term hot roof comes from the earliest days of insulating attics. Some people believed insulation was actually a heat source, even though in actuality it is a barrier between two areas of different temperatures. Another term that describes a hot roof is an unvented attic. If the roof deck of your home has been insulated, it's actually now a part of your home's conditioned space. This is a great benefit as it helps prevent ice dams and helps save you money on monthly energy bills.

Injection Foam Insulation: Injection foam is an insulation and air barrier that seals enclosed cavities like existing walls. Injection Foam is usually installed from the outside by removing a row of siding, drilling a hole into the stud cavity, and injecting the foam. The installation can be done from the inside on certain occasions depending on the project.

Insulation Contractor: An insulation contractor is a contractor who installs insulation. Some insulation contractors do a little bit of everything, meaning they may install fiberglass and spray foam. Others are more specialized and only deal with one type of insulation material.

Low-Pressure Foam Insulation: Low-pressure spray foam can be found at many home improvement stores in the form of a DIY kit. Low-pressure kits should only be used for small projects like around doors, headers around windows, or to fill in the spaces around your cold air returns.

Off-Gassing: Off-gassing or volatile organic compound (VOC) is all of the little bits that are expelled during the process of spraying something. Spray foam does off-gas and there are some health and odor concerns with off-gassing, but only when it happens in large amounts. When considering spray foam insulation for your home and you're concerned about off-gassing, look for products that are labeled "low-VOC."

Open Cell Spray Foam Insulation: Open cell spray foam is a continuous insulation that creates an air seal used in open cavities and pole barns. Open cell has a high expansion rate, is pliable, aids in sound dampening, and allows moisture to move through it, but doesn't retain it.

Passing Code Through Performance: Passing code through performance is how you can do it without worrying about prescriptive R-Value. This is done with foam insulation based on how the air seal is created and the home's performance after installation. It must be tested using REScheck or the HERS Index.



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Prescriptive Code: Prescriptive code is what an insulation contractor, specifically for fiberglass and cellulose, uses to pass code. Prescriptive code is a set R-Value for a home determined by the climate zone where it is located.

R-Value: R-Value is the capacity of insulation to resist heat flow. R-Value doesn't tell the whole story when it comes to foam insulation as the material creates an air seal that stops air leakage into and out of a home.

REScheck: REScheck is used to assist insulation contractors in proving energy code compliance and creates the reports necessary for code officials. REScheck is one of the most popular and common programs used when it comes to testing performance. It is so popular because it is fast and easy and once you enter the data, it immediately tells you whether you have passed or failed.

Rim Joist: The rim joist, also known as band joists, is the area where your foundation wall, exterior wall, and subfloor meets. It's an area that has often been left uninsulated in older homes.

Roof Deck: This is a two for one deal because you can't talk about the roof deck without mentioning the attic flat. When insulating an attic with spray foam, either the underside of the roof, known as the roof deck, or the attic floor, known as the attic flat, are recommended.

Sound Deadening: Sound dampening, or sound deadening, is reducing noise in a room or structure. This does not mean the space is completely soundproof. Foam insulation can reduce sound transmission by up to 80 percent.

Soundproofing: Soundproofing a room or structure means you are making it resistant to the passage of sound.

Spray Foam Insulation: Spray foam is an insulation and air barrier used to insulate open wall cavities, attics, crawl spaces, and rim joists. Spray foam can be either open cell or closed cell - both create an air seal.

Stack Effect: Stack effect is when the air comes in through your crawl space or basement, moves up through your floors and walls, and finally makes its way to your attic and out. This is cold air in the winter and hot air in the summer that puts extra strain on your AC unit and furnace.

Thermal Bridging: A thermal bridge occurs in your home when there is a break in the building envelope, like in the insulation. This means if there is an interruption in your insulation, then space is created where air can move through into and out of your home.

Vapor Barrier: The job of a vapor barrier is to slow down the movement of water vapor into your home. It can be placed anywhere in your home that there is a high risk of moisture getting into the building envelope like the attic, crawl space, or basement. A house wrap is considered a vapor barrier.

Wythe Cavity: The wythe cavity is a small air space between the brick exterior and the stud cavity of a home. On one side there is brick and on the other, there is sheathing that separates it from the stud cavity.

For any questions, please contact us.