



# UNIVERSAL POLYMERS CORPORATION

A Division of General Manufacturing Coatings Corp.

## SPF TERMINOLOGY

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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 performed to test the airtightness of your home 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.

**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.

**Certification:** Building Performance Institute (BPI) offers certifications and standards, 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.

**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 spray foam 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 insulation that spans the structure without thermal bridging.

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

**Fiberglass Insulation:** Fiberglass insulation is made of extremely fine glass fibers and is found in most homes. It 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.

**Fire Stop:** A fire stop is a horizontal wall and a wall cavity that is designed to maintain the fire-proofing of a wall assembly, allowing it to impede the spread of fire and smoke.

**Flash and Batt:** Flash and batt is a combination of spray foam insulation with fiberglass batts. This technique is 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, then a piece of fiberglass batt insulation is installed over it. It's typically done in walls.



## SPF TERMINOLOGY (CONT.)

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**Froth Pack:** A froth pack is a low-pressure polyurethane spray foam kit. A froth pack comes 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. Spray foam contractors use equipment to create that high pressure and high heat for the spray equipment. The spray system is run out of a truck with a generator where the foam is mixed by a proportioner. This professional machine is only used by experienced contractors to ensure the spray foam is mixed properly.

**Home Performance:** Home performance is an evaluation of all 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 a heat source, even though insulation is a barrier between two areas of different temperatures. Another term that describes a hot roof is an unvented attic with spray foam. If the roof deck of your home has been insulated with spray foam, it's 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 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 the odors that are expelled during the process of spraying. Spray foam does off-gas and there are some health and odor concerns with off-gassing, but only when it happens in large amounts with poor ventilation. When considering spray foam insulation for your home, if 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 in multiple building types. 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.



## SPF TERMINOLOGY (CONT.)

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**Prescriptive Code:** Prescriptive code is what an insulation contractor, specifically for fiberglass and cellulose, uses to meet building code requirements. 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 measurement of insulation to resist heat flow. R-Value doesn't tell the whole story when it comes to spray 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 joist, is the area where your foundation wall, exterior wall, and subfloor meet. It's an area that has often been left uninsulated in older homes and where large amounts of air leakage occur.

**Roof Deck:** When insulating an attic with spray foam, the underside of the roof is insulated directly to the roof sheathing to create a barrier of insulation that creates an enclosed attic space.

**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 60 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 where 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.