



## FAQ

### **Q. How long has BioFOAM Insulation been around?**

**A.** BioFOAM Insulation, Inc. was formed in 2007 to serve the insulation needs of Central and South Texas.

### **Q. How long has BioBased Insulation been around?**

**A.** Polyurethane spray foam has been around for more than 30 years. BioBased Insulation began operation in 2003 with the commitment to help create a healthier, more durable, energy efficient and environmentally responsible insulation.

### **Q. What is BioBased 501?**

**A.** BioBased 501 is an open-cell, semi-rigid foam insulation. It is sprayed-in-place as a two-part polyurethane. Once applied, it expands to 100 times its original size and provides a sealed, thermal building envelope. BioBased 501, like all BioBased Insulation products, was formulated with the environment in mind and utilizes annually renewable resources to replace some of the petroleum in the product. The product also is water-blown, which means it does not contain CFCs or HCFCs. This product is the most environmentally friendly insulation in the industry.

### **Q. What makes BioBased Insulation so effective?**

**A.** BioBased Insulation is so effective because it is applied as a liquid and expands 100 times its original liquid size in seconds. As it expands, it conforms and fills each cavity, crevasse and void to create a sealed thermal envelope. BioBased Insulation creates a highly-efficient seal against air infiltration, the number one source of energy loss in a structure. This innovative insulation adheres to any clean, dry surface and will not sag, settle or disintegrate. BioBased Insulation also is an inert substance and will not support mold growth, insects or rodents. It also does not breakdown over time, so it creates a sealed interior that blocks harmful outside irritants.

### **Q. How does BioBased Insulation save consumers money?**

**A.** While the initial cost of installing BioBased Insulation may be higher than traditional insulation, the savings in monthly utility bills outweighs the extra cost and results in a positive cash flow. When paired with other responsible building components, BioBased Insulation can reduce monthly energy bills by up to 50%. As an example, using BioBased Insulation may increase your monthly mortgage by \$15, but decrease your monthly utility bills by \$65, providing a net savings of \$50 each month. Because BioBased Insulation creates a continuous, sealed thermal envelope around your home or structure, in many cases, you also can save additional money by reducing the required

size of the HVAC (heating and air conditioning) unit.

**Q. How does BioBased Insulation control indoor air quality and comfort?**

**A.** BioBased Insulation provides a healthier, draft-free, indoor environment. Because BioBased Insulation expands to fill every cavity, crevasse and void, it provides a sealed thermal envelope that does not sag or settle over time. This improves indoor air quality by blocking harmful outside irritants such as mold, pollen and other allergens and offers an alternative to fibrous particulates which are attributed to many traditional insulation products.

This sealed envelope gives the HVAC system full control over the amount and filtration of fresh air coming into the structure in addition to reducing drafts and temperature differences throughout the building. A sealed envelope can also reduce the amount of airborne noise pollution entering the home.

**Q. How does BioBased Insulation control moisture movement and condensation?**

**A.** A significant cause of moisture issues in structures is the result of warm, moist inside air being exchanged with cold, dry air inside a wall cavity. This moisture can condense within the cavity and result in mold, mildew and rot. Because BioBased 501 and BioBased 1701 air seal, this moisture movement and subsequent condensation potential is greatly minimized.

**Q. How long does BioBased Insulation last?**

**A.** Indefinitely. As an inert, thermoset plastic, BioBased Insulation will maintain its properties throughout the life of the building.

**Q. How long does it take for BioBased Insulation to cure?**

**A.** BioBased 501 will cure in approximately 17 seconds as it expands to 100 times its liquid volume. BioBased 1701 will cure in approximately 2 minutes and expands to 60 times its liquid volume.

**Q. What is the R-Value of BioBased Insulation per inch?**

**A.** The R-value of BioBased 501 is 3.83/inch. BioBased 1701 has an R-value of 5.5/inch.

**Q. What is the flame spread and smoke development of BioBased 501?**

**A.** BioBased 501 has a flame spread of <25, and a smoke development of <450. BioBased 501 is a Class 1 fire-rated material.

**Q. Does BioBased Insulation adhere to metal or wood studs?**

**A.** BioBased Insulation adheres well to almost any material, especially wood and steel studs, which are commonly found in residential and commercial construction.

**Q. Can BioBased Insulation be sprayed over electrical wiring?**

**A.** BioBased insulation does not pose any issues with electrical wiring as long as the electrical wiring is installed per National Electric Code. Any overheating issues with

BioBased insulation in regards to wiring would be directly related to improper installation of the circuit or the size of the wiring. Polyurethane foam is chemically compatible with electrical wiring plastic.

**Q. What happens if the owners want to add an electrical outlet once BioBased Insulation is installed?**

**A.** BioBased 501 remains soft allowing a certified electrical contractor to pull a new wire through. For wires that may be moved frequently, such as home theater wiring, ENT conduit should be placed in the wall before the insulation is installed.

**Q. Are there any compatibility concerns with other building materials?**

**A.** BioBased 501 is stable in the presence of most solvents found in binders, bituminous materials, wood preservatives and sealers. It is resistant to facers containing plasticizers, fuel, mineral oil, weak acid and weak bases, which are typically found in residential and commercial construction materials.

**Q. Does BioBased Insulation support bacteria or fungal growth?**

**A.** No, BioBased Insulation products are inert substances that do not provide a food source for mold.

**Q. Does BioBased Insulation contain formaldehyde?**

**A.** No.

**Q. Since BioBased 501 is made from soybeans, do rodents and insects eat the insulation?**

**A.** No. BioBased Insulation is an inert substance and provides no food value for rodents and insects.

**Q. How is BioBased Insulation installed?**

**A.** BioBased Insulation is installed by independent certified contractors. Application takes place after the electrical, plumbing and mechanical systems are installed, but before sheetrock is started.

**Q. Can homeowners install BioBased Insulation themselves?**

**A.** No, only trained professionals can install BioBased Insulation because of the sophisticated equipment needed to install it properly. BioBased Insulation trains its independent certified installers to ensure that products are properly installed.

**Q. Who named BioBased 501 “Outstanding Green Product of the Year?”**

**A.** The National Association of Homebuilders (NAHB) named BioBased 501 the “Outstanding Green Product of the Year” in 2003 at its Green Builders Conference in Baltimore, Maryland.

**Q. Do the BioBased B-Components contain raw materials derived from genetically modified (GM) soybeans?**

**A.** Yes. All of our soy oils come from soybean processors who purchase soybeans on the open market. According to USDA figures for 2007, 91% of all soybeans produced in the United States are genetically modified (GM) for herbicide resistance. The main benefits of using GM soybeans are that they are readily available and affordable, because they cost farmers less to grow. There are environmental benefits also. Since farmers of GM soybeans use conservation tillage practices, it takes less fuel, produces less carbon dioxide emissions and creates less soil erosion to grow the crop than it would to grow non-modified soybeans.

**Q. What is Energy Star?**

**A.** ENERGY STAR is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency. One step of the Energy Star Certification process is a Thermal Bypass Check list. BioBased insulation covers 13 of the 16 items listed on this check list.

**Q. What is LEED?**

**A.** The LEED (Leadership in Energy and Environmental Design) Green Building Rating System® is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Members of the U.S. Green Building Council representing all segments of the building industry developed LEED and continue to contribute to its evolution. BioBased Insulation has been used by builders in the past to assist in qualifying for up to 16 LEED credits.