



# Bluebonnet Insulation Systems

Spray foam • Fiberglass • Retro-fit • Blown-in

Michael Moore  
214-289-8142

Terry Vaught  
469-658-5833

Closed Cell	Open Cell
<b>Adds Structural Strength</b> Can increase structural strength up to 300 %	<b>Does Not Add Strength to Structure</b>
<b>Air Barrier</b> Both types of foam serve as an air barrier for the structure	
<b>Water/Vapor Barrier</b> Will serve as an efficient moisture barrier at 1.5" thick	<b>Will allow water to permeate foam</b> Moisture will be able to soak in to foam like a sponge
<b>Durable</b> Can be left exposed without risk of damage	<b>Less dense/expansion</b> Can expand to fill cavity but will be less dense, so it needs to be protected from damage
<b>FEMA approved</b> Only FEMA-approved insulation type	<b>Noise Reduction</b> Can be used for noise reduction
<b>High R Value</b> Offers one of the highest R-values (resistant to heat flow) of any insulation on the market	<b>Lower R value</b> Needs to be twice as thick to achieve same R-value

Spray foam has been around for over 70 years and is in many products you use every day. It is used in hot tubs, fighter jets, travel mugs, seat cushions, beds, TV and movie sets, sound stages and even space shuttles! It has one of the widest range of applications of any product produced today.

The chart below demonstrates why spray foam is also the preferred choice for sealing and insulating buildings.

## FOAM SCIENCE 101 Why Spray Foam?





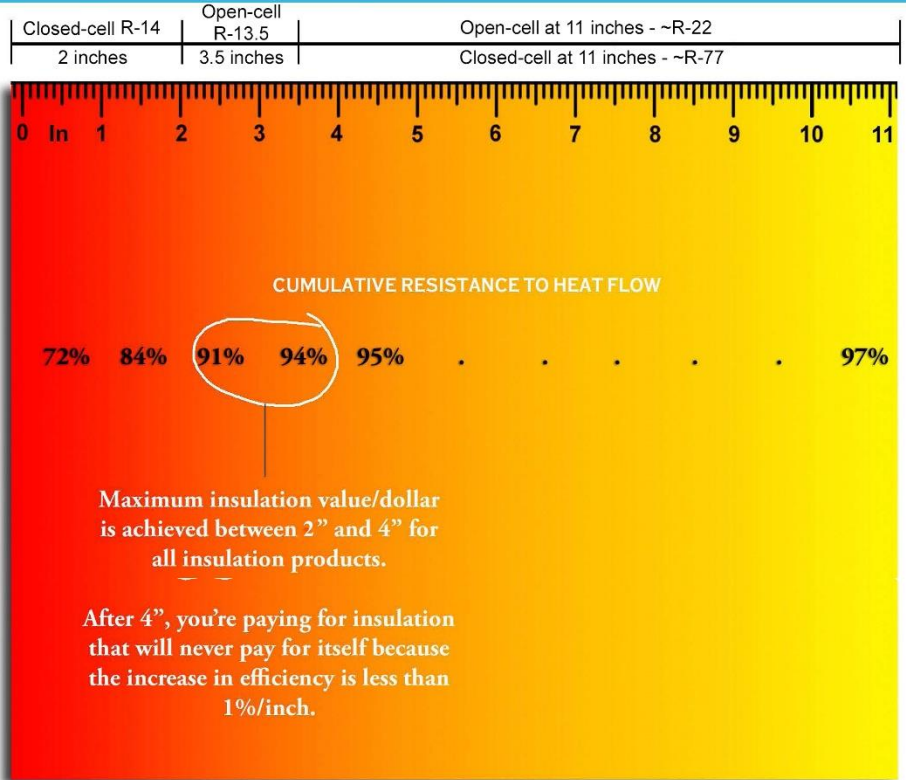
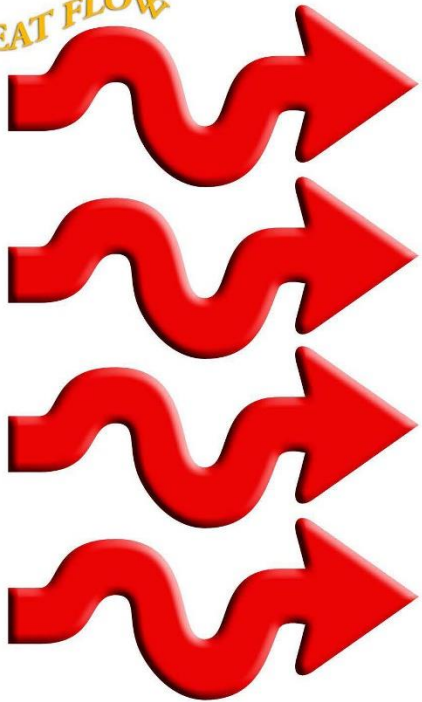
# DIMINISHING RETURN of R-VALUE

For *all* types of insulation

Most people believe that with every additional inch of insulation they purchase, they will experience a proportionate increase in energy efficiency performance. While this seems intuitive, the laws of thermodynamics prove otherwise. With every insulation product there is a point of diminishing return where additional insulation provides little or no increase in energy efficiency.

Surprisingly, that point for all insulation products is around R-13.

HEAT FLOW



NAHB RESEARCH CENTER

## INSULATION COMPARISON CHART

FEATURE OR BENEFIT	FIBERGLASS BATTS	WET SPRAYED CELLULOSE	OPEN-CELL SEMI RIGID SPRAY FOAM	CLOSED CELL RIGID SPRAY FOAM
perfect fit and conformity to cavity size/shape			●	●
meets vapor barrier requirements				●
meets air barrier requirements			●	●
does not wick or absorb water				●
contains no formaldehyde		●	●	●
does not settle or sag over time			●	●
remains adhered to vertical substrate such as walls			●	●
remains adhered to horizontal substrate such as floors			●	●
remains adhered to angled substrate such as roof decks			●	●
will not support combustion	●	●	●	●
provides additional structural strength				●
can help reduce combustion in a fire event due to air-seal		●	●	●
will not shrink	●		●	●
does not require drying time	●		●	●
no food value for pests or rodents	●	●	●	●
does not emit harmful gasses or dust particles			●	●
maintains R-Value in extreme hot/cold conditions			●	●
significantly reduces sound transmission		●	●	●
helps maintain good indoor air quality			●	●
will NOT become a habitat for dirt, allergens, and dust mites			●	●
<b>TOTAL SCORE</b>	<b>4</b>	<b>5</b>	<b>17</b>	<b>20</b>