KNAUF INSULATION

IT'S TIME TO RETHINK INSULATION

Homeowners know insulation helps keep the temperature of their homes comfortable.

KNAUF INSULATION

BUT, THEY DON'T ALWAYS RECOGNIZE

THE HIDDEN CONNECTION BETWEEN

WALLS & WALLETS

They don’t realize they lost $6.00 today.
$180 last month.
And, $2,190 this year.

It’s time you told your customers about

Heat Bleed™

Heat Bleed™ \ *hēt blēd* \

The loss of energy from a building through structural leaks and inadequate insulation, including the waste of water, natural gas, electricity and other resources due to inefficient fixtures or appliances.

Ignoring Heat Bleed™ will cost you too

- *If you're not promoting Energy Efficiency, you will be at a competitive disadvantage.*
- *If you're not promoting Insulation Upgrade packages, you're leaving money on the table.*
- *It you're not promoting Total Cost of Ownership and the ROI of insulation upgrades, you're doing yourself and your homebuyers a disservice – and costing them money.*

The only way to prevent Heat Bleed™?

Build a new home that features optimal
Air Sealing & Insulation

EcoSeal™ System – The optimal air-sealing & insulation solution for your homebuyers, your installers, your other subs on the jobsite, your scheduler and your budget

- ✓ *Thermal Performance*
- ✓ *Acoustical Performance*
- ✓ *Air Sealant Performance*
- ✓ *Optimal Simplicity*
- ✓ *Optimal Sustainability*
- ✓ *Minimal In-Place Cost*
- ✓ *Maximum ROI for the home buyer*

What goes into the Knauf Insulation EcoSeal System?

- **EcoSeal Water-Based Elastomeric Sealant**
- **EcoBatt Insulation**
- **Jet Stream Ultra Blowing Insulation**

The EcoSeal System Difference

Knauf Insulation EcoSeal™ System		vs.	Traditional installations:	
	EcoSeal is applied to seal any gaps or cracks.	1	Insulation batts are installed in the walls.	
	EcoBatt® is laid in wall cavities.	2	Insulation is laid in the attic.	
	JetStream is blown into attic spaces.	3	Air seeps through gaps and cracks causing Heat Bleed.	
	Enjoy the comfort and energy savings!	4	Pay higher bills or tear down walls to start sealing and re-insulating.	

You may be thinking:

"I already install insulation. It's code!
Why should I actually promote it?"

We're glad you asked.

Easy to Sell

The Knauf Insulation EcoSeal System prevents Heat Bleed while appealing to today's home buyers.

Stainless steel appliances and granite counter tops are nice, but won't stop my home from bleeding money

It costs me a fortune to fill up my car … I need to find ways to save on monthly expenses

We're on a fixed income - lower and more predictable energy bills are important to us.

We want a home that is comfortable and quiet for our family – unlike our first home

Call me green, but I look for products that are good for the environment.

Easy to Sell

Pragmatic vs. aesthetic
High performance & High efficiency
Total cost of ownership
Low monthly bills
Good for the environment

Granite countertops
Stainless steel appliances
Dual head showers
Rubbed bronze hardware

Invest in features that will PAY BACK

Easy to Sell vs. Foam

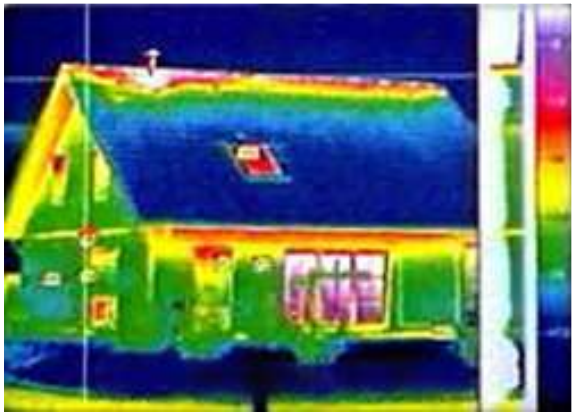
This is the average house in the US

This is your competition

This is a big opportunity

And the solution for your homebuyers is NOT foam, unless you want to …..

- *Pay 3 times what you should*
- *Disrupt your schedule and other trades*
- *Take bags of shavings to the landfill*
- *Add to our Oil Dependency problem*



Heat Bleed!

Code Compliance

EcoSeal System is the ideal solution to ensure you meet the upcoming air exchange requirements set forth by the 2009 IECC and Energy Star

Energy Star for Homes, version 2.5 …… Apr1, 2011

Homes shall pass all requirements of 'Section 3: Fully-Aligned Air Barriers' and 'Section 5: Air Sealing' to qualify.
All items on the inspection checklist shall be completed
All homes that have both permitting and final inspection dates between April 1, 2011 and December 31, 2011 must be qualified under v2.5
RESNET standards will apply to all Energy Star Homes moving forward

Energy Star for Homes, version 3.0 ……. Jan1, 2012

Requires pressure testing to ensure proper sealing
Requires fully aligned air barriers
Thermal bridging requirements call for advanced framing

IECC 2012 code changes

Energy Code 13 (residential)
- *30% more stringent than 2006 IECC*
- *Requires pressure testing to ensure proper sealing*
- *Increased R values in thermal envelop*

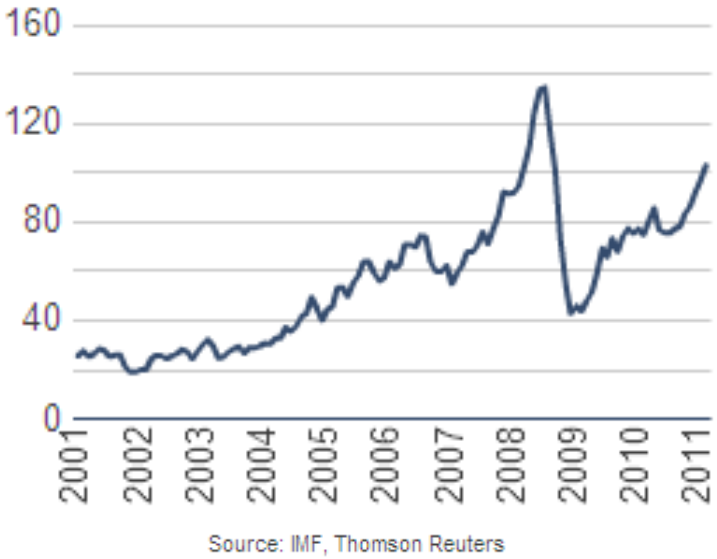
Energy Code 147 (commercial)
- *30% improvement in energy efficiency*
- *Reduced glazing area requirements means more area to insulate*

It is anticipated that most states will adopt the 2012 IECC since federal grants are tied to adoption and enforcement.

Energy Independence

Our products don't rely on petroleum-based ingredients, making Knauf Insulation a greener, more affordable option.

- *Global demand for finite resources will rise*
- *Oil prices will continue to rise*
- *Heating & Cooling costs will rise*



Source: IMF, Thomson Reuters

Genuine Sustainability

KNAUF INSULATION

What's in it?

Post-Consumer Recycled Glass

Corn

Sand

What's not in it?

No formaldehyde

No phenol

No acrylics

No artificial colors

ECOSE® TECHNOLOGY

Did you know?

Using EcoBatt® on one 2,000 sq. ft. home saves the equivalent of 1,800 glass bottles from a landfill.

Genuine Sustainability

Our products reduce energy consumption, saving hundreds of times more energy in use than required to make them.

- *Using over **56% post-consumer recycled glass** bottles in our fiber glass insulation*
- *Reclamation and reuse vented heat in our manufacturing facilities*
- *Development of the most advanced compression packaging technology in the world – the result is the reduction of transport emissions of distribution operations, and for our customers*

Easy to Sell vs. Foam

EcoSeal™ System - *There is simply NO Comparison*

OR

The Proof: Performance

EcoSeal™ System

Performance			
Measure	**Knauf EcoSeal System**	**Wet Sprayed Cellulose (with sealing)**	**SPF (Spray Polyurethane Foam—open cell)**
Maximum R-Value (2"x4" cavity)	R-15	R-13	R-11/12
Envelope Air Tightness ACH_{nat}*	<0.15	<0.15	<0.15
Water Added to Structure	None	24 gallons	Little if any

Why Choose Knauf EcoSeal System with EcoBatt Insulation?	
Cost Effective	Allows you to offer homebuyers high performance at a lower cost.
Maximum R-Value	Gets maximum R-value in typical or advanced framing scenarios.
Consistent Performance	R-value performance is not dependent on installation like alternative products can be. The R-value you see on the package is what it achieves consistently from cavity to cavity, wall to wall and house to house.

ACH_{nat} = natural air changes per hour

The Proof: Sustainability

EcoSeal™ System

Sustainability			
Measure	**Knauf EcoSeal System**	**Wet Sprayed Cellulose (with sealing)**	**SPF (Spray Polyurethane Foam—open cell)**
Recycled Content	• 45% Post Consumer	• 55% Post Consumer • 30% Pre Consumer	None
Primary Ingredients	• Post Consumer Recycled Glass • Sand • Corn	• Post Consumer & Post Industrial Recycled Paper • Fire Retardants	• Oil Derivatives • Fire Retardants • Some have Bio-Based content • Some have CFCs
Recycling Impact (2,155 SF home)	• 1,788 Equivalent Beer Bottles	• 294 Equivalent Sunday Newspapers	None
Fire Retardant Type (commonly used)	None. Glass does not burn.	• Borate • Ammonium sulfate	• Persistent • Bioaccumulative
Fire Retardant Amount (approximate)	None	• 15% by weight (336 pounds)	• 10% by weight (26 pounds)

Why Choose Knauf EcoSeal System with EcoBatt Insulation?	
More Sustainable	With an industry-leading percentage of post-consumer recycled glass, EcoBatt Insulation uses renewable, natural and abundant resources rather than non-renewable petroleum-based chemicals. It contains no formaldehyde, no phenols, no artificial colors and no acrylics.
High Performance	EcoBatt Insulation as a part of the EcoSeal System is the most cost-effective way to improve the thermal and acoustical performance of a home. It is interior-friendly—GREENGUARD certified for Children & Schools℠ and helps projects meet LEED green building standards.

The Proof: ROI to Homeowner

EcoSeal™ System

Insulation Package:	Price Premium Over Base	Savings Over 7 years	Return Rate	Payback Time (yrs)
EcoSeal + EcoBatt R-13(walls) and JetStream Ultra R-49(attic)	$1,600-$1,700	$ 4,672	34%	5.7
EcoSeal + EcoBatt R-15(walls) and JetStream Ultra R-49(attic)	$1,750-$1,850	$ 4,826	32%	5.7
EcoSeal + EcoBatt R-19(walls) and JetStream Ultra R-49(attic)	$1,700-$1,800	$ 5,470	39%	5
EcoSeal + EcoBatt R-21(walls) and JetStream Ultra R-60(attic)	$2,100-$2,200	$ 5,661	31%	5.3
SPF R-13(walls) + R-49 Loose Fill fiberglass in air sealed attic	$2,900-$3,000	$ 4,627	12%	7.9
SPF R-19(walls) + R-49 Loose Fill fiberglass in air sealed attic	$4,300-$4,400	$ 5,470	6%	8.6
Wet spray Cell R-13(walls) + R49 Cell(attic) - both air sealed	$2,250-$2,350	$ 4,627	20%	6.8
Wet spray Cell R-19(walls) + R49 Cell(attic) - both air sealed	$2,400-$2,500	$ 5,470	24%	6

It's an investment, not an expense.

Why Knauf Insulation? Product Solutions

ECOBATT™ *insulation bonded with nature*

- *Consistently achieves the stated R-Value—not subject to installer technique*
- *Contains no formaldehyde, no phenol, no acrylics and no artificial colors*
- *Uses a minimum of 56% post-consumer recycled bottle glass*
- *Made from bio-based ingredients and renewable and abundant resources with no petroleum-based chemicals*
- *Interior-friendly—GREENGUARD certified for Children & Schools and designated formaldehyde-free*

GREENGUARD Indoor Air Quality Certified

GREENGUARD Children & Schools Indoor Air Quality Certified

Formaldehyde FREE

Why Knauf Insulation? Product Solutions

KNAUF INSULATION

JET STREAM® ULTRA

Fiber Glass Blowing Insulation

- *ULTRA-performance in attics and sidewalls. Never settles.*
- *ULTRA-convenient. One product, one inventory, two applications.*
- *ULTRA-sustainable. Minimum 56% post-consumer recycled glass content. Each bag contains the equivalent of over 30 recycled bottles!*
- *ULTRA-fast, ULTRA-easy installation.*

GREENGUARD Indoor Air Quality Certified

GREENGUARD Children & Schools Indoor Air Quality Certified

Formaldehyde FREE

Why Knauf Insulation? Product Solutions

ECOSEAL™

EcoSeal provides exceptional performance

- *Air leakage resistance exceeds EPA Energy Star requirements*
- *Superior thermal performance—assured R-values*
- *Sound Transmission Class (STC) values beat foam*

EcoSeal is cost effective

- *Provides high performance at a lower installed cost*
- *Saves homeowners money with lower energy bills*

EcoSeal is simple to install

- *All crews can install—no specialized training required*
- *No risk or delays to other trades*
- *Easy to see—makes inspection easy*

We help you sell

Interactive countertop display

Repositionable wall graphic

Presentation Kit

Rotating freestanding display

We help you sell

Builder Microsite

Enewsletter

Homeowner soles piece

Showroom/jobsite and ceiling banner

Comfort certificate

Knauf Insulation – Global Leadership

Knauf Insulation

As the second largest producer of insulation globally, Knauf Insulation represents one of the fastest growing and most respected names in insulation worldwide.

Energy efficiency

Committed to meeting the increasing demand for energy efficiency in new and existing homes, non-residential buildings and industrial applications.

$1.5 billion

Strong and steady financial performance with revenue exceeding $1.5 billion in 2008 and 2009

5,000 employees

Nearly 5,000 employees in more than 35 countries and more than 30 manufacturing sites.

Why Knauf Insulation? Culture

Our Mission: ***We Will Become the World Leader in Energy Efficient Systems for Buildings***

Entrepreneurial

Customer Focused

Open

Committed

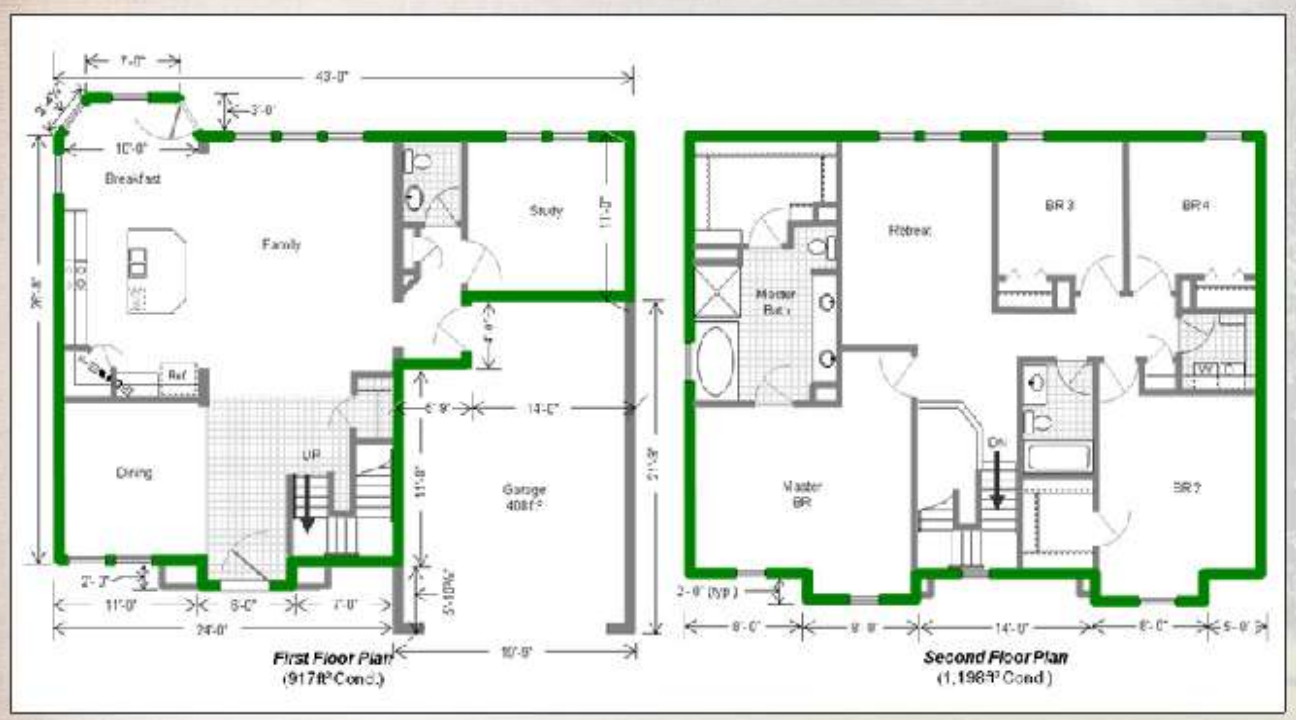
Our Values

Appendix

"Example" House

2,522 sq ft two story
2,115 sq ft conditioned space
Assumes Indianapolis, IN climate and energy costs

Appendix



Insulation

Notes:

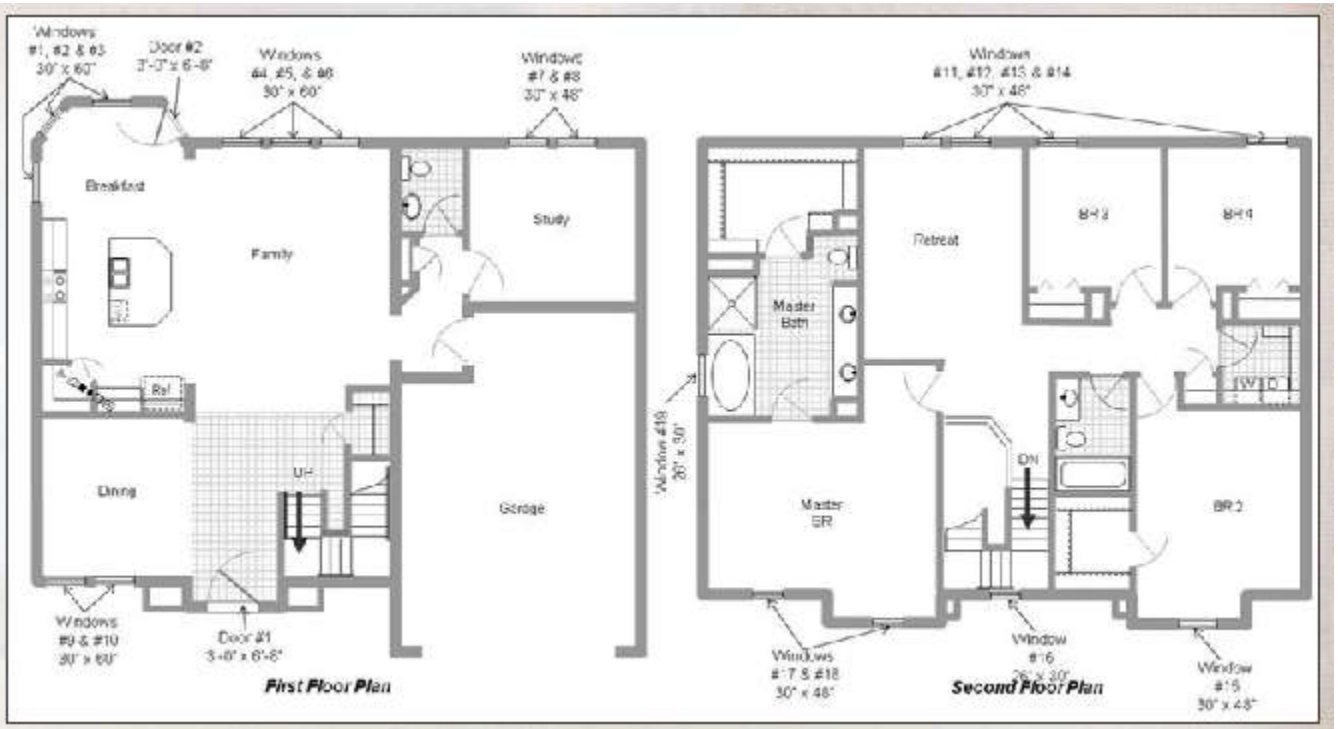
1. All conditioned area ceilings are 8'-0" a.f.f.
2. 3'-0" x 6'-8" insulated metal exterior doors R8.
2. Vinyl, double pane, low-e, argon filled, R3 windows.
4. Hardwood flooring except where tiled as indicated.
5. Unconditioned, vented crawl space.
6. 2" x 10" floor and ceiling joist.

Insulated Wall

Appendix

Fenestration Schedule

Notes:
1. Insulated metal exterior doors R8.
2. Vinyl, double pane, low-e, argon filled, R3 windows



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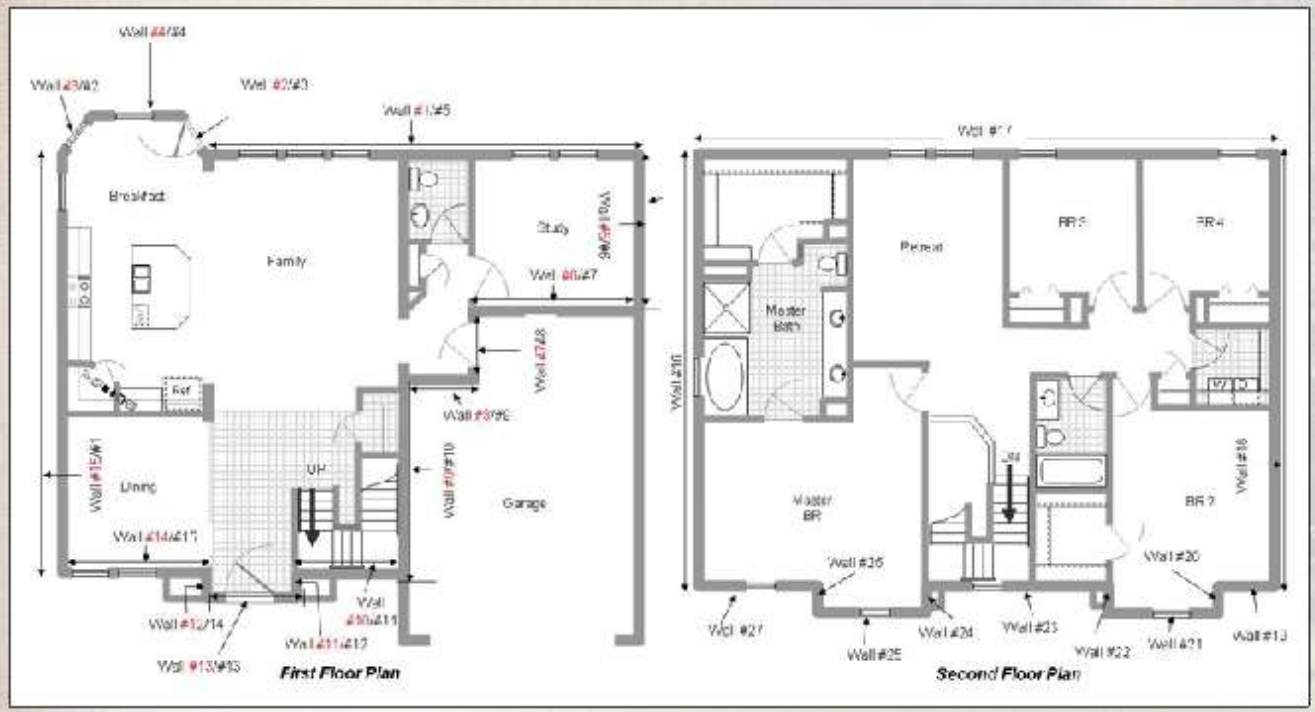

Thermal Barrier Wall Schedule

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Notes:
1. Insulated metal exterior doors R8.
2. Vinyl, double pane, low-e, argon filled, R3 windows.

Foundation Wall ID Number

Above Grade Exterior Wall ID Number

Appendix

HVAC Ductwork