

High-Performance Fiberglass Insulation Systems

What to Know and How to Know It

The Obligatory Self Promotion

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Guest Lecturer, Wichita State University (2010-Present)

Assistant High School Football Coach

Wife, 2 Kids, 2 Dogs, 1 Cat, 1 Frog

Etc., etc.



What is/are High Performance Insulation Professionals?

Also, acceptable – What or where's BIBCA?



HIGH PERFORMANCE
HP/IP
INSULATION PROFESSIONALS



2014



Association Prospectus





MAY, 2013

WILLIS

AMERICA'S FAVORITE SANDWICH,
DELIVERY GUYS!

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Resolution of Board:

Board resolves to redraft master contract
to expand scope of the organization
to support high performance fiberless
based wall systems. Supported manufacturing
system to be reviewed by a
view a commission on system & technology.
perm.

Action timeline

- Exploratory/Discovery call next week
- Recommendation to bill board by next mth

MISSION



BIBCA members and Blow In Blanket Systems will be recognized as the best by industry professionals and consumers.

"We support the growth and expertise of our members who provide high performance, energy efficient, fiberglass-based insulation systems and related components."



MISSION

Founded in the early 1980's, the Blow In Blanket Contractor's Association was incorporated in 1989 as a 501 (c)(6) nonprofit trade organization. The original Board banded together to promote and advocate for the use of the Blow-in-Blanket® System, and to support BIBS® contractors with training and networking opportunities. Much has changed, but our core mission still rings true; we're here to support high-performance fiberglass systems and the contractors who install them. In May, 2013, Industry Partners Johns Manville, Knauf Insulation, Service Partners, and CertainTeed, along with our 10-member voting Board of Directors met to discuss the change and rebirth of our long-standing exclusive traditions. What resulted is a new mission and expanded membership criteria that will move the market to higher standards. Ultimately, this will support corporations and contractors who promote best practices.





ABOUT HPIP

HPIP embodies everything BIBCA worked hard for over the past 30 years, and strives to make it better. This organization is made up currently of 237 of the best-trained and most committed insulation contractors across the US and Canada. Where we remained a static 100+ in past years, we've seen recent growth with new membership categories and more flexible criteria. We're often asked what makes this Association different from others in the industry. The answer is simple. We advocate for and support only systems that meet Grade-One standards, we're focused primarily on blown-in fiberglass systems, and we invite only contractors who commit to our standards of excellence and professionalism.

There is not another association in the industry upholding these standards and continually raising the bar for it's members. We work with and respect the individual focus of each association, and the contractors they represent. Some work diligently in the political arena to secure the industry's stance in Washington. That's has never been part of our focus. For us, improving the industry means continuing to invest in the boots on the ground. The contractors who live what we preach every day. We have always loved and supported BIBS® , the Blow In Blanket® System. We will now expand our embrace to include other blow-in fiberglass systems and components of them. We will also strive to support contractors who are not currently using a branded system such as ProPink Complete® , but would like to do so. By serving as an incubator, we will support previously un-trained contractors and shift the industry by converting these insulation contractors into trained professionals who offer tested, branded systems.

Our efforts compliment rather than compete with other insulation trade associations. We are all different, and we all serve an individual purpose. After 30 years, we are more committed than ever to ours!





WHY HPIP?

In this industry, we believe that contractors will see a more demanding and savvy consumer. Energy efficiency is an everyday word now, and that was not always the case. Our Association is all about quality. Quality installation. Quality systems and technology. Quality contractors, and quality partners. We've been working to raise the bar in the industry for decades, and our mission is more relevant now than ever before. Supporting this independent voice for quality, as a contractor, manufacturer, or supplier tells the world that you value quality too. Your involvement also helps grow awareness of the effective yet sometimes overlooked systems that meet our quality standards.

A large segment of building professionals and consumers are still unaware of the benefits of high performance blown-in fiberglass systems, and the complimentary high performance systems available. Many still make the leap from low-density, poorly installed batts right up to high-end foam systems; overlooking the many great options in between. For nearly 30 years, our members have been promoting and advocating for the Blow In Blanket® System as the best option on the market. We are now broadening our scope to genuinely shift industry and public perceptions of other similar systems and technology.

Supporting HPIP means you're on board with this shift. Joining these few hundred contractors and partners promoting the use of high performance systems means you understand. Like us, you want to help the rest of the industry and the public understand as well. HPIP supporters also strive to change the face of the industry's network of contractors. The days of untrained, unprofessional contractors are numbered, and the ones left standing will have understood our message, and taken action.

CONTRACTORS: It's imperative that you set yourself apart by joining your professional association and investing in your credibility, training, and professionalism.

SUPPLIERS: As the professionalism of your customers is nurtured and your brands promoted, they will be more successful. 85% of small businesses that close their doors were not involved in their nonprofit trade association. Successful contractors must be involved. Their success is your success.

FIBER MANUFACTURERS: In the grand scheme of things, greater promotion of high-performance systems means more product moved. On a more personal level, the tools and benefits we'll provide to your customers through your sales staff helps create an even stronger loyalty and bond between rep and contractor.

HIGH PERFORMANCE SYSTEMS WE ENDORSE

- o Insulsafe® SP Fiber Glass blow-in insulation (CertainTeed)
- o Optima® Fiber Glass blow-in insulation (CertainTeed)
- o Optima® Fabric as used in blown-in fiberglass systems (CertainTeed)
- o MemBrain™ Smart vapor retarder (CertainTeed)
- o FortiCel Mold Prevention System (CertainTeed)
- o CertaSpray® Closed-cell foam as used in hybrid systems (CertainTeed)
- o Jet Stream® Ultra Blowing insulation (Knauf)
- o Jet Stream® Max Blowing insulation (Knauf)
- o Ecoseal™ Water-based Elastomeric Sealant (Knauf)
- o Climate Pro® Fiber Glass blow-in insulation (Johns Manville)
- o Spider® Fiber Glass blow-in insulation (Johns Manville)
- o Spider® Fiber spray-in custom insulation system (Johns Manville)
- o Corbond III® Closed-cell Polyurethane foam as used in hybrid systems (Johns Manville)
- o High-Density Fiber Glass insulation, installed at Grade 1 standards only
- o ProPink Complete® , Fiber Glass blow-in insulation (Owens Corning)
- o EnergyComplete® , Air sealing system (Owens Corning)
- o INTELLO® , and INTELLO Plus, high performance airsealing membrane and intelligent vapor retarder (Pro Clima®)
- o DB+, Air sealing membrane and smart vapor retarder (Pro Clima®)
- o SOLITEX MENTO 1000 and Plus, Exterior waterproof airtight and vapor open weather resistant barrier (Pro Clima®)



Systems and Technology Committee

This new standing committee is tasked with collecting nominations of systems to be included and endorsed as high performance from the membership and industry. If nomination is passed forward by this committee as viable, the voting Board of Directors considers the full online application submitted by the nominee's designated representative. The committee also recommends an appropriate level of membership and contribution. The application of any system must meet with approval from a majority of the voting Board of Directors. This committee includes industry leaders Dean Moody (President) of Kennewick, WA (left), Greg Kudrna (Past President) of Kansas City (top), and Tanner Kinzler of Ames, IA (right). The committee accepts nominations year-round and puts forth recommendations at the beginning of each calendar year quarter. Platinum Members only are eligible to serve on this committee.



TRAINING

The shift in our Association has made us inclusive of numerous high-performance systems, and therefore it is less viable to train specific systems. This will be the responsibility of each system's internal staff going forward. In response to the changing environment our members face and the increasing need for quality high-performance insulation training, we will introduce three new programs in 2014. Training remains what sets our members apart. A contractor who is not trained in building science and education through a verified source will not be eligible for membership with HPIIP. Our three new education tracks will meet the needs of not only contractors, but RESNET Raters, BPI Analysts, code officials, building inspectors, and architects as they work to keep pace with the changing criteria in the industry. Beginning in 2014, our Training Program will move from a bi-annual offering to a year-round program in keeping with demand. We look forward to the continued support of Industry Partners as sponsors to keep this program affordable to members. As a nonprofit independent trade association, our training holds an extra level of credibility within the industry.

CONTRACTOR MEMBERS

HPIIP Air-Sealing and Insulation Verifier Course: Trained insulation contractors learn to inspect for the proper air-sealing and insulation of the building shell including verifying the RENSET Thermal Bypass Checklist; determining the leakage rate of the building shell and ducts outside the conditioned space and whether the insulation installation meets the RESNET Standards for Grade 1. This course is 12 contact hours (approximately 250 slides) delivered by video presenter in session modules and includes testing as well as field exercises. The course will be made available at selected events, and online. It will premier at the HPIIP Convention in Dallas, TX February 13-15, 2014.

RATERS AND ANALYSTS

Quality Installation Standards of High Performance Insulation: With this course, raters and analysts are trained in the application methods of high performance insulation, the advantages of utilizing high performance insulation, the advantages of utilizing HPIIP Member Contractors and how they maintain quality control, and the procedures and protocols Raters use for inspecting and verifying the density of high performance insulation. This course is 4 contact hours (75-90 slides) delivered by video presenter in session modules to include HPIIP installation professional standards and quality control methodology; why high performance Insulation methods are the best option; how and why HPIIP Member Contractors are conscientious, high-quality professionals; and how to inspect and perform a field density verification to ensure the installation meets quality standards. This course includes testing and field exercises when applicable. It will also be made available online, and is expected to be ready for launch early in 2014.

ARCHITECTS, ENGINEERS, INSPECTORS, CODE OFFICIALS

Inspecting and Verifying HP Insulation Standards: These members will learn the insulation basics, the building science behind the Thermal Bypass Checklist, the application methods of high performance insulation, the advantages of utilizing high performance insulation, the advantages of utilizing HPIIP Member Contractors and how they maintain quality control, and the procedures and protocols Raters use to inspect and verify the density of high performance insulation. This course is 6 contact hours to include Insulation Basics, Air Sealing Basics, HPIIP Installation Professional and Quality Control methodology; why high performance Insulation methods are the best option, and how to inspect and perform a field density verification to ensure the installation meets quality standards.

HPIP Executive Officer

Contact person for questions about HPIP

Kristin Bennett

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**What about the
systems?**

BIBS[®]



Blow-In-Blanket[®] System and BIBS[®]
are registered trademarks of
Blow-In-Blanket, LLC

HP Systems Solve Batt Issues



- Blown into the wall at correct density
- Fills every gap & space
- Consistent, uniform R-Value
- Gets around wires, boxes, and pipes

HP Systems Advantages

Properly installed:

- Eliminates voids and gaps
- Does not settle
- Reduces air infiltration
- Provides high R-values



Perfect Fit!

Up to 60% of stud spaces are non-standard!

- Greater than or less than 16” or 24” on-center
- Wires, pipes, electrical boxes in cavities
- Curves, angles, unusual spaces



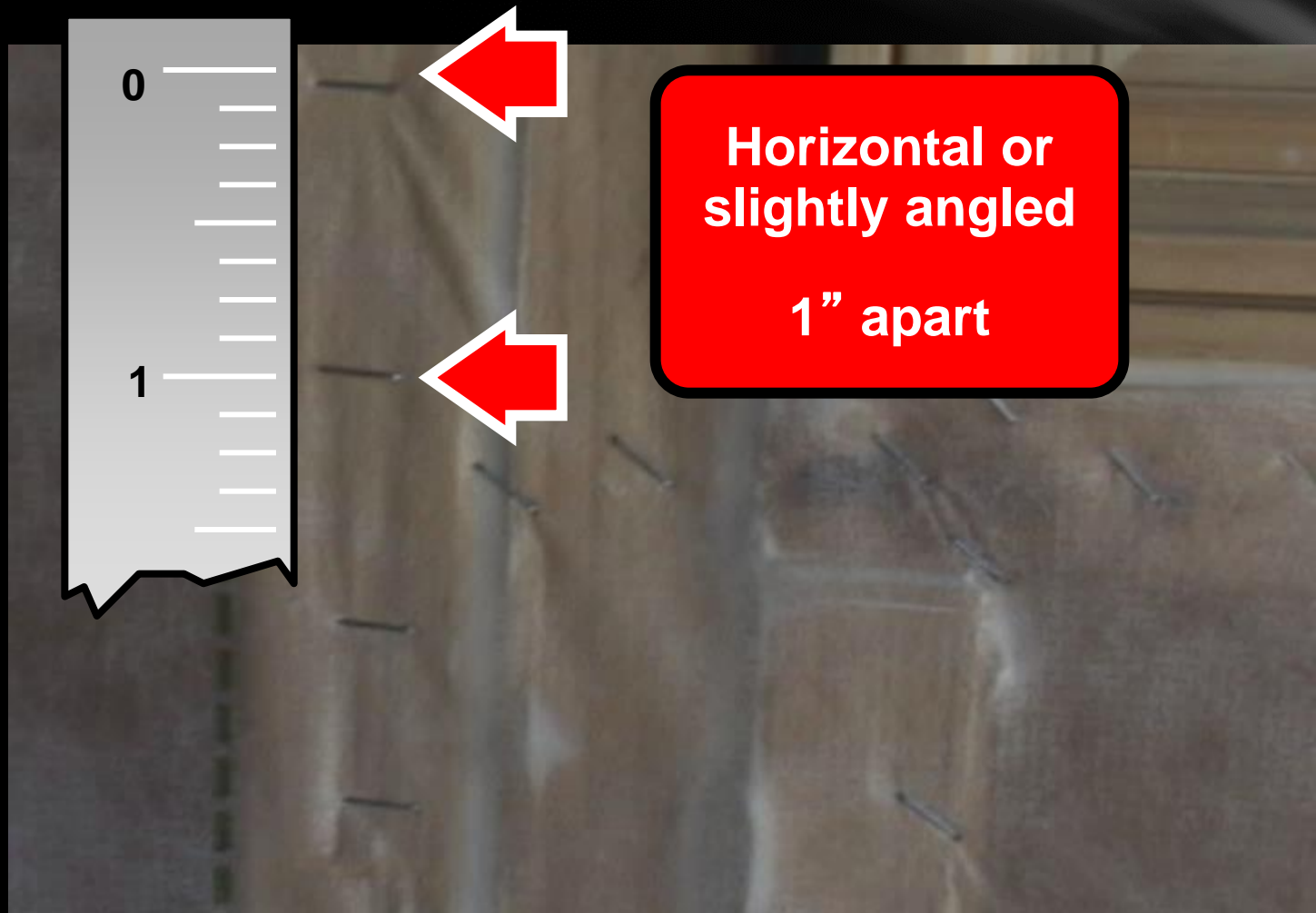
Fits any Configuration

Excellent, custom fit for:

- Standard framed walls
- Vaulted ceilings
- Custom windows
- Arches and other curved spaces
- Crawl spaces and cavities



Spacing the Staples



Blowing



**Move nozzle
back and forth
Withdraw slowly**

**Fill in
behind and
under
obstructions**

Goal



No voids or “light fill” areas

Uniform appearance

Not too much bulge

No lumps or “rats”

R-Values: HP Systems vs Batts

Construction	HP	Batts
2x4 (3 1/2")	R-15	R-11
2x6 (5 1/2")	R-23 (24)*	R-19 (17.4)
2x8 (7 1/4")	R-30	R-19
2x10 (9 1/4")	R-38	R-25
2x12 (11 1/4")	R-47	R-30

*references Knauf MAX fiber to achieve R-25 in Canada, not available in the USA.

Thermal Testing

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graph TD; A[Thermal Testing] --> B[R-Value]; A --> C[Bag Weight Requirements];
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R-Value

**Bag Weight
Requirements**

This product is manufactured in the field

Trained Certified Installers

- Net Stapled properly to hold fiberglass blow
- Fiberglass installed at correct densities
- Use of tested fiberglass with that brand of netting



Ask about Density! A certified installer will know what you're asking. If not, you may have a problem.

Density = Weight per given volume

BIBS® must be installed to a target density!

1.5 lb

2.0 lb

2.8 lb

Density Measurements

Regular measurements
are critical!

- After first 3 – 4 stud cavities
- Every 800 – 1,200 square feet after that
- Cubic Foot Test (Cavity Test) is the approved method of verifying density:
 - Use BIBS® Density Kit
 - Available through BIBCA, www.bibca.org
- Document the results!



Cubic Foot Test

1. Remove 1 cubic foot sample

- Standard width cavity
- Measure the length, using table

2. Weigh the sample

3. Compare with target

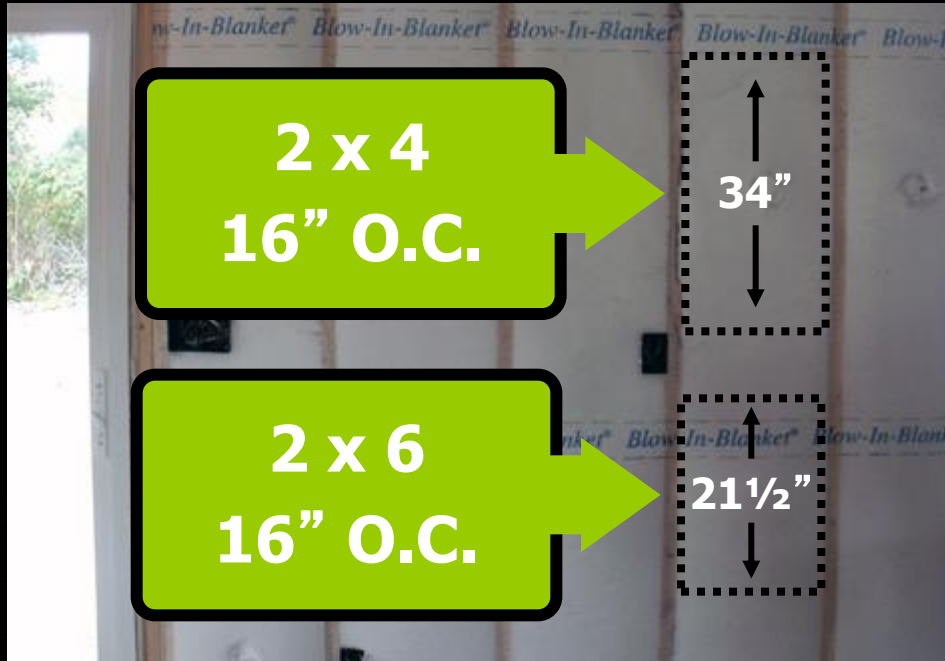
- Printed on every bag of fiber



Measure 1 Cubic Foot



Remember: 34" and 21 1/2"



Measure carefully and get all the fiber!

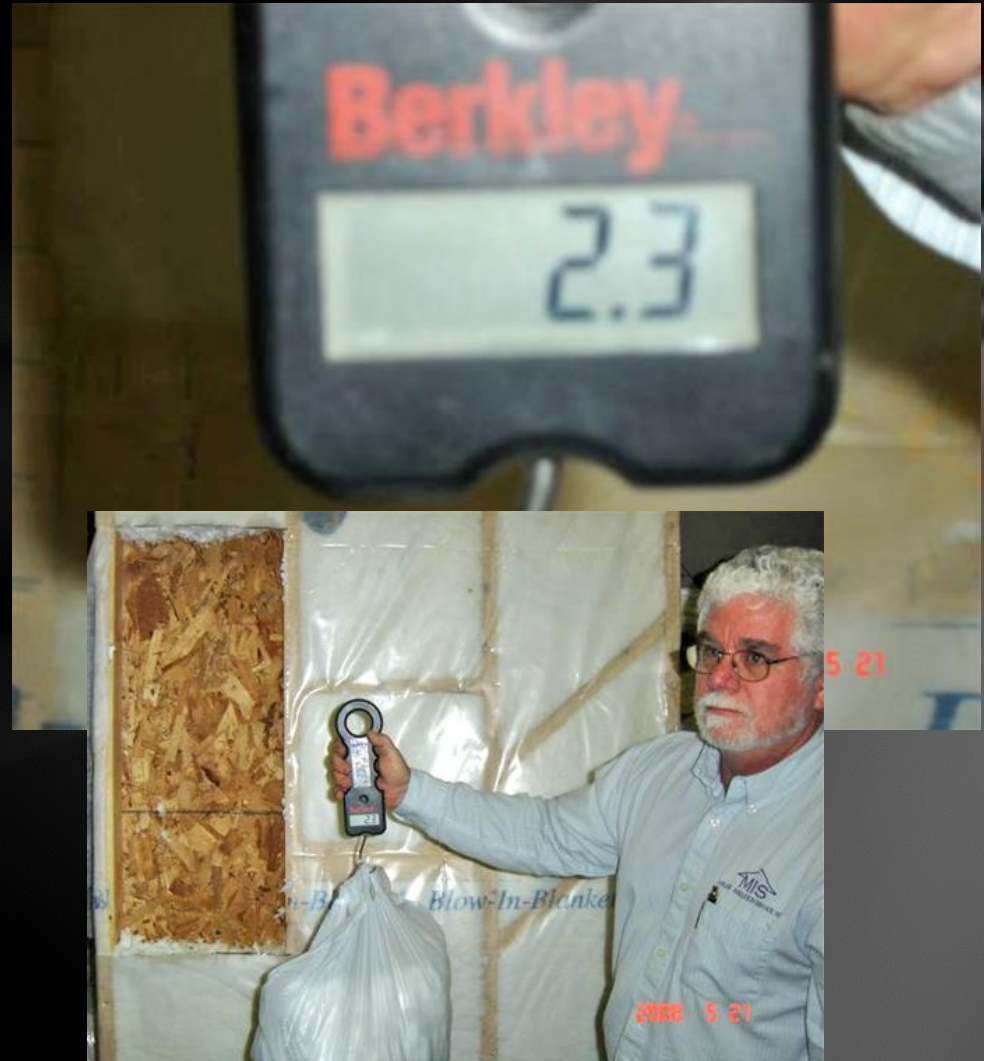
Measurement Table

Wall Cavity Thickness		Remove this Length	
Stud size	Cavity depth	16" O.C.	24" O.C.
2x4	3 1/2"	34"	22"
2x6	5 1/2"	21 1/2"	14"
2x8	7 3/4"	16 1/2"	10 1/2"
2x10	9 1/4"	13"	8 1/2"

Weigh the Sample

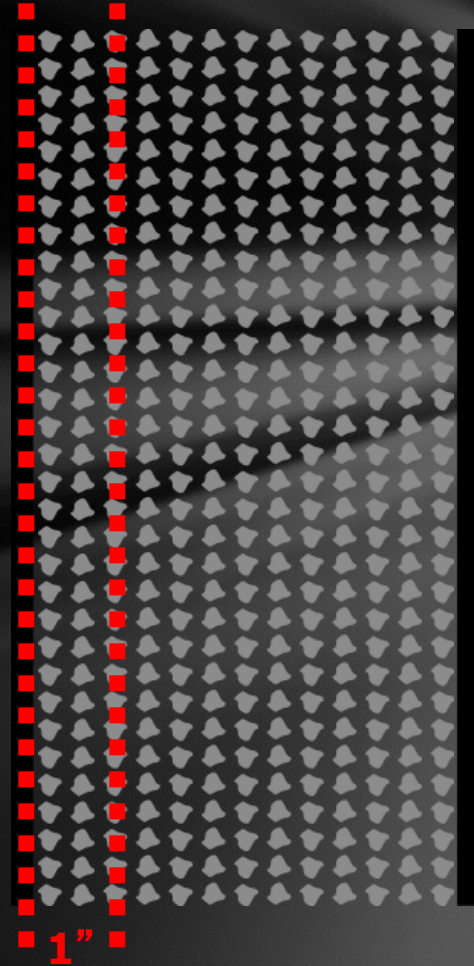
Target density:

- About 2 pounds per cubic foot
- Depends on type of fiber
- Check fiber bag for target density



What's the R-Value?

- About 4.2
R-Value per inch
- R-values listed on fiber bag along with
target density



4.2 R-value Per Inch

Document the Densities!

FTC Rule 460 (US)
and
16 CFR Part 460 (Canada)

BIBS is an on-site
manufacturing process, and
YOU are the manufacturer!

**Your company and the
builder could be
subject to a \$10,000
fine for incorrectly-
installed HP Insulation**



Training and Certification

Initial training

- Classroom and hands-on training
- Written test

Maintenance training (every 3 years)

- Online modules
- Online test

Hands-on training (every 6 years)



What Do We Certify For?

- Density

- Feed Rate

- Visual Dust

- Machine Performance

- Hose Type

- Blowing Time

- Static

- Respirable Dust

- Machine Settings

- Customer Input

Outstanding People

Trained and certified installers



QUESTIONS?

