

Importance of professional installation



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Find a Spray Polyurethane Foam Professional



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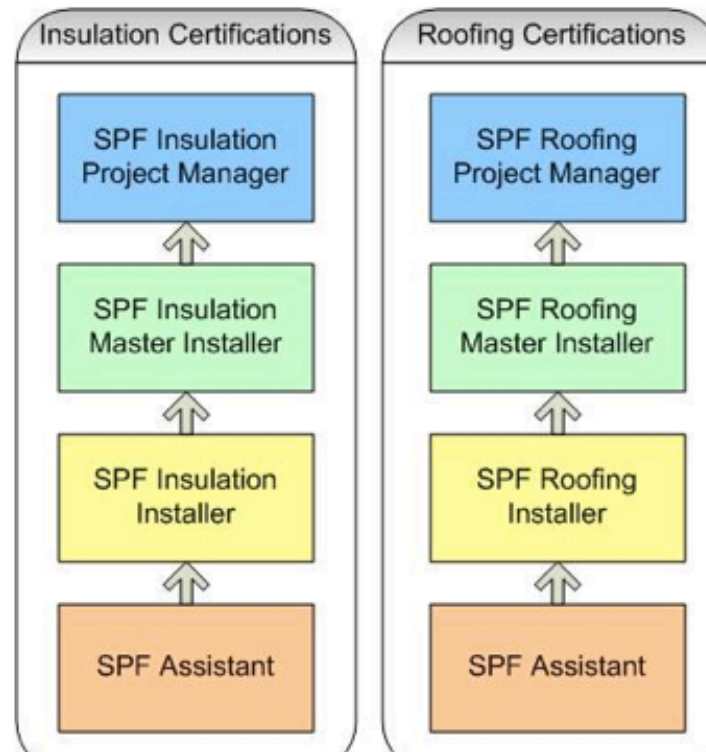


SPFA Professional Certification Program (PCP)



SPFA's Professional Certification Program (PCP) was launched at the SprayFoam 2013 Convention & Expo. It is an internationally recognized certification which meets the ANSI/ISO 17024 Standard. Individual Certifications will be available at four different levels in two categories - Insulation and Roofing.

Individual Certifications:



Association Info.

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INFORMATION FOR INSTALLERS

Home Page

The Air Barrier Association of America (ABAA) will prepare you for the challenges and rewards in the air barrier industry with our Air Barrier Installer course. ABAA sets the standard in quality and assurance and provides installers with a sense of professionalism and pride.

Training is an investment in the future and a tool for success. ABAA's elite training program provides you with an edge in an increasingly competitive marketplace. Whether you are looking to upgrade your skills, or searching for a new career, ABAA's Air Barrier Installer course is designed to meet your needs.

[Air Barrier Assembly Installer Licensing](#)

ABAA's training and licensing programs provide a means to ensure applicators possess the necessary skills and knowledge to produce quality air barrier installations. Certifications sets you apart from the competition and identifies you as a professional.

[Requirements for obtaining certified installer status](#)

ABAA offers training and certification in various air barrier applications

- [Self Adhered](#)
- [Fluid Applied](#)
- [Spray Polyurethane Foam](#)
- [Mechanically Fastened](#)
- [Water-Resistive Barrier](#)



ABAA AIR BARRIER MASTER SPECIFICATIONS

:: Design Professionals

:: Manufacturers

:: Contractors

:: Installers



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CONTRACTORS & MEMBERS**



**INSTALLER
TRAINING COURSES**



**ABAA EVALUATED
AIR BARRIER MATERIALS**

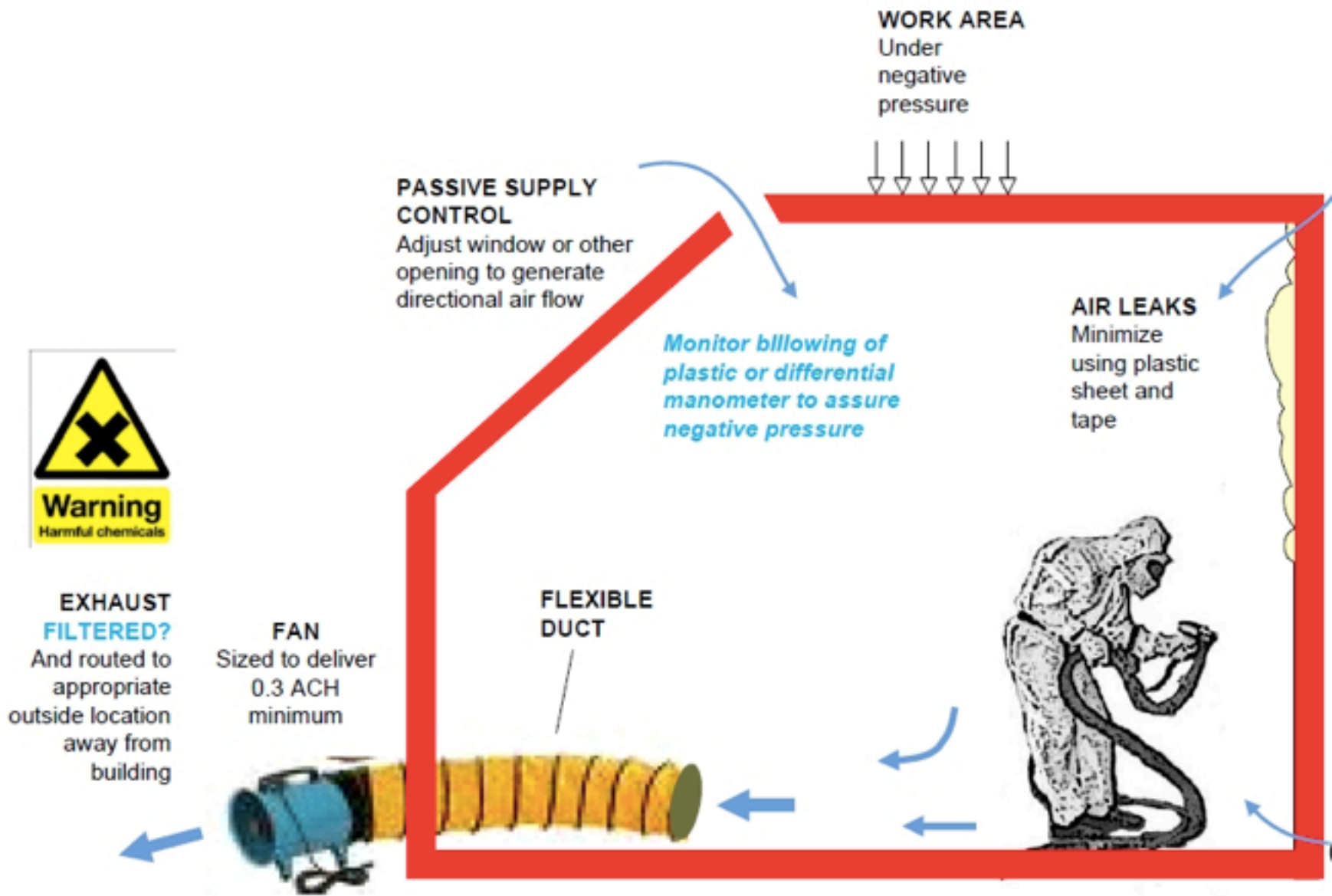


**ABAA EVALUATED
AIR BARRIER ASSEMBLIES**



**ABAA EVALUATED
WATER RESISTIVE BARRIERS**

Health Considerations



Health Considerations



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Design for the Environment An EPA Partnership Program

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Spray Polyurethane Foam (SPF) Home



You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

Spray polyurethane foam (SPF) is an effective insulation and air sealant material; however, exposures to its key ingredient, isocyanates such as "MDI," and other [SPF chemicals](#) that may be found in vapors, aerosols, dust or on surfaces during and for a period of time after installation may cause adverse health effects such as asthma. Therefore, [steps to control exposures](#) and [safety tips](#) should be followed.

Information on these Web pages is aimed at helping to ensure the safety of SPF applicators and building occupants where SPF is installed. It is also aimed at providing safety and scientific information to professionals in business, non-governmental organizations, academic institutions, and regulatory agencies.

[SPF Home](#)

[Quick Safety Tips for SPF Users](#)

[Vacate and Safe Re-Entry Time](#)

- Building Occupants and Other Workers Should Vacate During SPF Installation
- Determining Safe Re-Entry Times

Spray Polyurethane Foam (SPF) Site Navigation

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Highlights

The international conference, [Isocyanates and Health: Past, Present and Future](#), which will take place in

Health Considerations

U.S. ENVIRONMENTAL PROTECTION AGENCY



Existing Chemicals



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Existing Chemicals
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Methylene Diphenyl Diisocyanate (MDI) and Related Compounds Action Plan Summary

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What chemicals are addressed in the action plan?

This action plan addresses EPA's review of Methylene Diphenyl Diisocyanate (MDI) and related compounds, CASRNs 101-68-8, 5873-54-1, 2536-05-2, 26447-40-5, 9016-87-9, 17589-24-1, 31107-36-5, and 25686-28-6.

[EPA has developed a separate Action Plan for Toluene Diisocyanate \(TDI\) and its related compounds.](#) TDI is chemically similar to MDI and presents similar hazard and exposure concerns, but is reportedly used in a different range of products.

Why is EPA concerned about these chemicals?

Diisocyanates are well known dermal and inhalation sensitizers in the workplace and have been documented to cause asthma, lung damage, and in severe cases, fatal reactions. Worker exposures are already subject to protective controls in occupational settings, but EPA is concerned about potential health effects that may result from exposures to the consumer or self-employed worker while using products containing uncured (unreacted) MDI and its related polyisocyanates (e.g., spray-applied foam sealants, adhesives, and coatings) or incidental exposures to the general population while such products are used in or around buildings including homes or schools.

What action is EPA taking?

Based on EPA's screening-level review of hazard and exposure information, including information indicating uncured MDI and its related polyisocyanates are used in a range of consumer and commercial products as well as in products intended only for an industrial market, EPA intends to:

1. Issue a data call-in for uncured MDI under [TSCA section 8\(c\)](#) to determine if there are allegations of significant adverse effects and initiate a [TSCA section 8\(d\)](#) rulemaking for one-time reporting of relevant unpublished health and safety studies for uncured MDI.
2. Consider initiating a [TSCA section 4](#) test rule to require exposure monitoring studies on uncured MDI and its related polyisocyanates in consumer products and exposure monitoring studies in representative locations where commercial products with uncured MDI and its related polyisocyanates would be used.

View

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BLOG POST

Foam-In-Place Insulation: 7 Tips for Getting Injection and Spray Foam Right

August 18, 2014

Quality installation of the two types of site-manufactured foam insulation is no easier than fiberglass batt and no less important. Here is how to avoid the most common problems.

By Peter Yost

One of my first research projects when I started at the NAHB Research Center in 1993 was looking into a new insulation: Icynene. We were evaluating its performance as a spray-applied, open-cavity insulation as well as an injection foam in closed cavities. I was enamored: this seemed to be a miracle insulation that installed itself, sealing up tight even in the toughest and most complicated building cavities.

At about the same time, the NAHB Research Center was developing an installation quality program for fiberglass batt insulation, notoriously difficult to get installed right. I scoffed; we would never need that for these foam-in-place systems!

Twenty-plus years later, it's clear how wrong I was. What looked as easy as



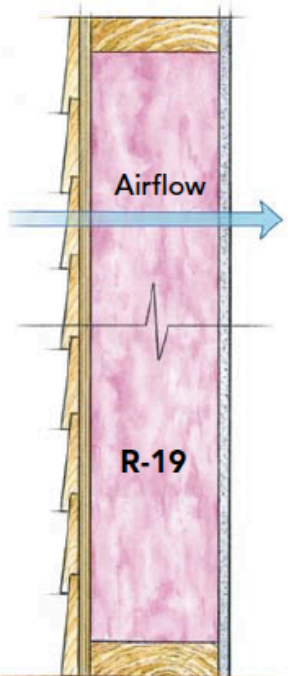
There are two ways to site-install foam insulation: injection and spray. Injecting foam is most often done in closed cavities in retrofit applications; spray foam is most often done in open cavities and in new construction. The formulations and methods of installation are different for closed-cavity and open-cavity foam installations.

Photos: Henri Fennel (L); Peter Yost (R)

Flash-n-batt or Flash-n-fill hybrid insulation

Fiberglass-batt insulation

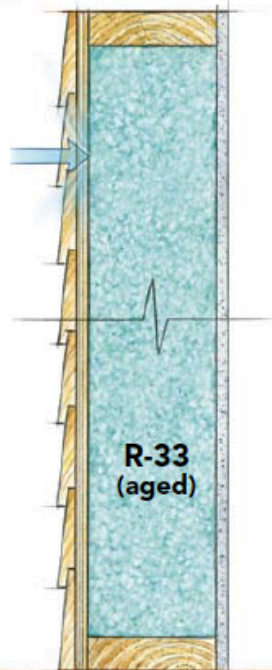
Although inexpensive and widely available, its thermal performance is easily and seriously defeated by even small air leaks.



\$3000 to \$4000

Closed-cell foam (2 lb.) spray polyurethane

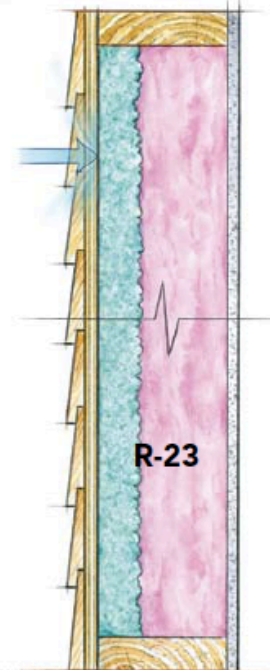
This foam is a better insulator, and it blocks the passage of both water vapor and air.



\$12,000 to \$15,000

Flash and batt

This method combines the best parts of fiberglass with the best parts of spray foam while canceling out the negatives of both.



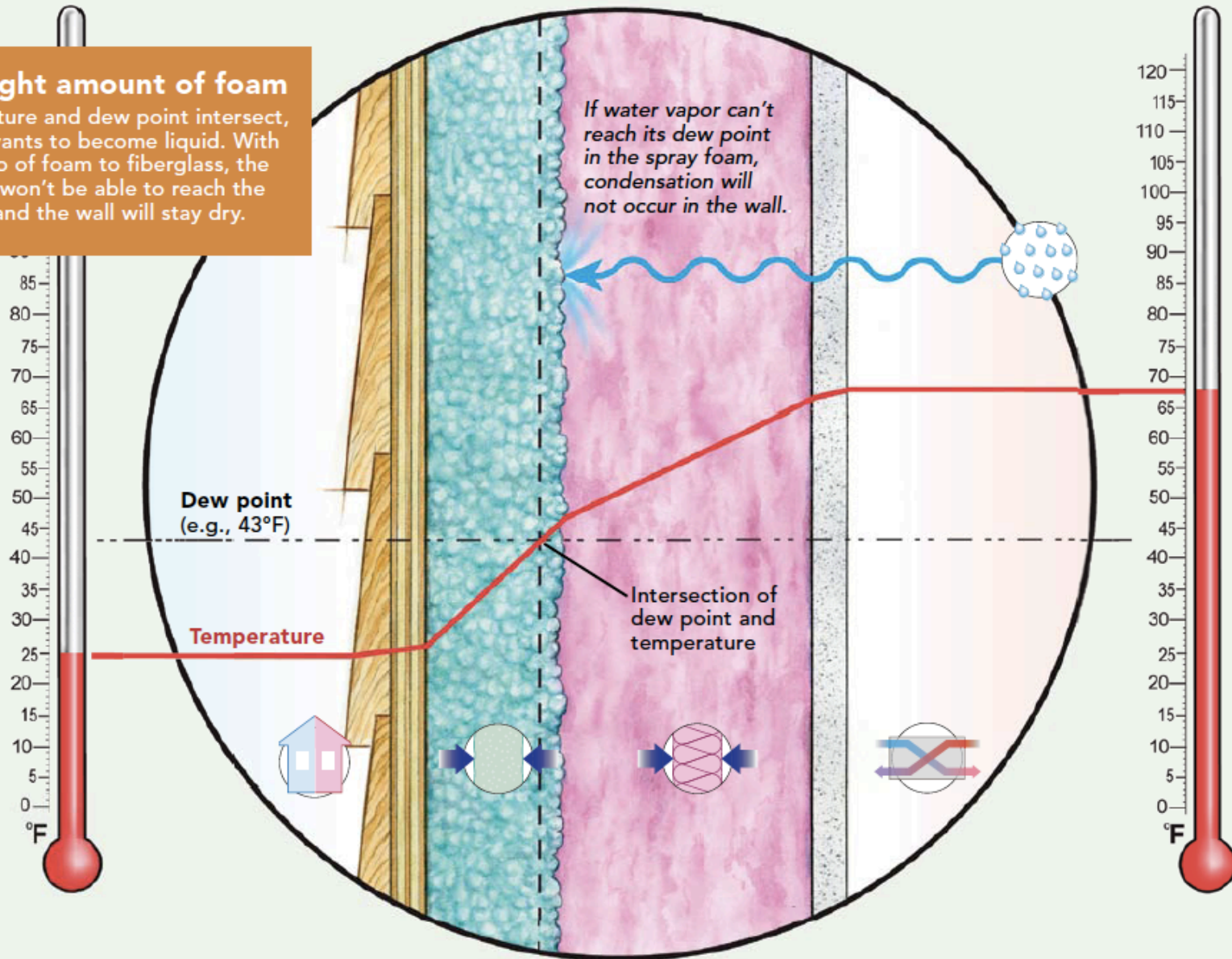
\$11,000 to \$12,000

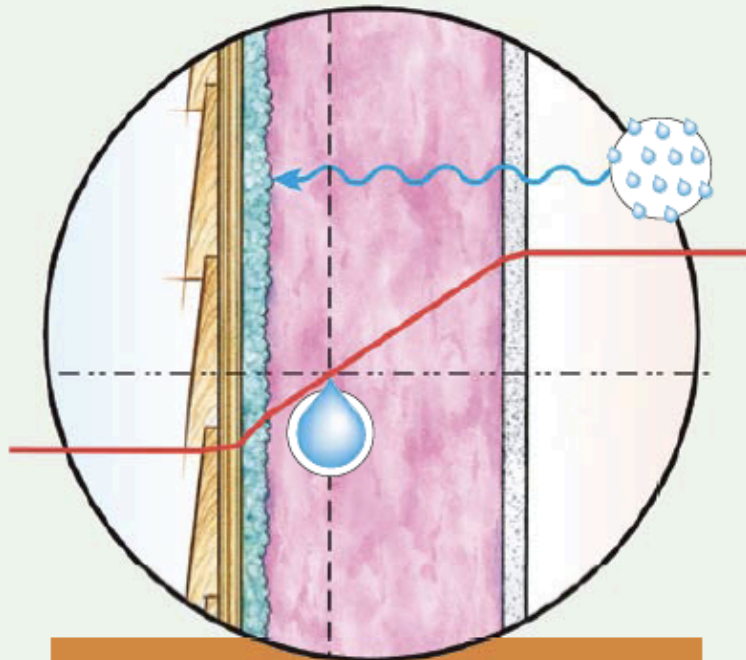
Cost of insulation materials for 2000-sq.-ft. house

Fine Homebuilding and GBA: "Why Flash and Batt Makes Sense"

Just the right amount of foam

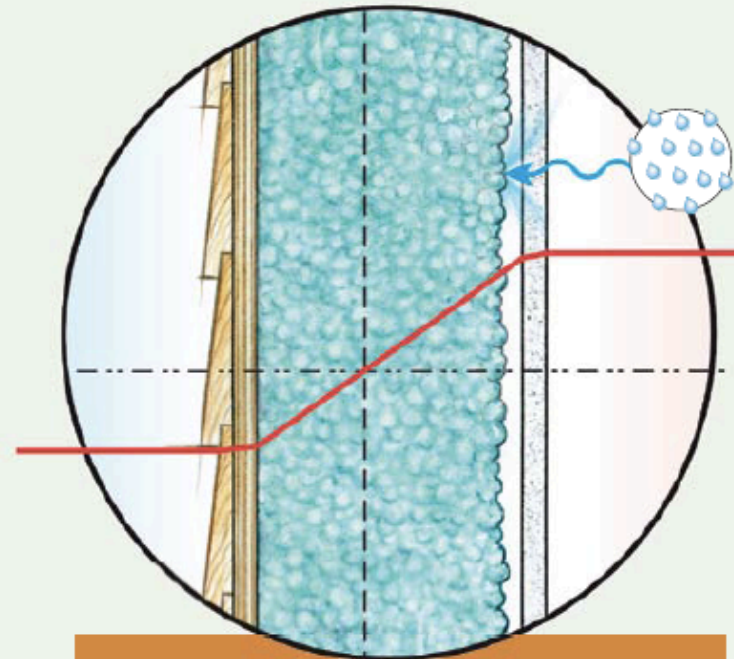
When temperature and dew point intersect, water vapor wants to become liquid. With the right ratio of foam to fiberglass, the water vapor won't be able to reach the dewpoint and the wall will stay dry.





Not enough foam

If the flash coat of foam is too thin, water vapor will reach the dew point and condense in the fiberglass, but the closed-cell foam will limit its ability to dry to the outside.



Too much foam

There's no real danger of mold, rot, or other damage in the wall cavity if the flash coat of foam is too thick, but the cost-effectiveness is severely diminished.

SPRAY POLYURETHANE FOAM FOR HYBRID INSULATION SYSTEMS PART 2: CLIMATE ZONES 4-7

AY-147

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SPRAY POLYURETHANE FOAM ALLIANCE
SPFA

For more information: BuildingGreen

- BuildingGreen's new in-depth guide to insulation
- Comprehensive coverage of insulation material properties, performance, and environmental issues
- \$97 from BuildingGreen; discounted for members
- For information:
 - BuildingGreen, Inc.
122 Birge Street, #30
Brattleboro, VT 05301
800-861-0954
www.buildinggreen.com

The BuildingGreen Guide to Insulation

What You Need to Know
About Performance, Cost, Health and
Environmental Considerations

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Third Edition



For more information: GreenBuildingAdvisor



Kingspan Kooltherm Phenolic Foam Rigid Insulation

A deep-energy-retrofit project uses Kooltherm as part of a high-performance attic insulation system

POSTED ON JAN 25 2018 BY [PETER YOST](#)

Improving the thermal performance of an existing attic is often challenging: workers are faced with narrow cavities, low clearances, and cladding systems that make it hard to achieve desired R-values while still maintaining the necessary drying potential of the assembly.

The house at 81 Chapin Street in Brattleboro, Vermont, is no exception. It's a 100-year-old wood-framed two-story home that Alex Beck and Candace Pearson are determined to comprehensively retrofit to high performance.

That's where Eli Gould, owner and founder of [Ironwood Brands](#), comes in. Eli is an architect and builder responsible for projects like the [Lemon's "Almost" Passive House](#) and Alex and Jerelyn Wilson's Leonard Farm retrofit (see multiple [GBA Energy Solutions blogs on the Wilson project](#)). The Brattleboro project has no shortage of challenges; for example, in subsequent blogs we will discuss the basement. Here, we'll focus on the attic, which needed careful hygrothermal consideration.



Image 1 of 7

A type of rigid foam insulation called Kingspan Kooltherm was installed as part of the energy retrofit work at this house in Brattleboro, Vermont. The house has a slate roof.