



Dow Building Solutions

FROTH-PAK™ Systems by Dow

Increase performance. Increase business.

Increase your bottom line.



United States | COMMERCIAL/RESIDENTIAL

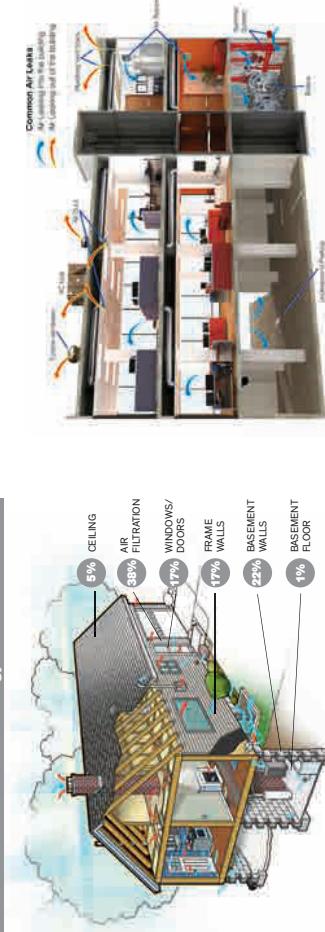
FROTH-PAK™
insulation and foam sealants by

Seal the deal in a way no one else can.

Better building performance means better business.

Dow Building Solutions offers a number of products designed to outperform building codes and the elements, all while helping you stay a few steps ahead of your competitors and increasing customer satisfaction. These products include FROTH-PAK® Systems, which are an excellent choice for reducing drafts, increasing building comfort and possibly expanding your current service offerings.

Sources of Energy Loss



Why Air Seal with FROTH-PAK®?

Air infiltration accounts for 25%–40% of a building's energy loss. Air sealing with FROTH-PAK® helps to:

- Reduce energy consumption
- Lower heating and cooling bills
- Increase interior comfort
- Limit drafts and heat loss
- Reduce temperature fluctuations
- Improve air quality
- Minimize carbon footprint
- Decrease load on HVAC system
- Seal out pests and allergens
- Help prevent moisture intrusion
- Dampen outside noise
- Protect structural durability

Benefits to Occupant

For your customers, FROTH-PAK® Systems help create a more comfortable and efficient environment in four key areas:

Comfort – Building occupants enjoy more consistent temperatures and fewer drafts

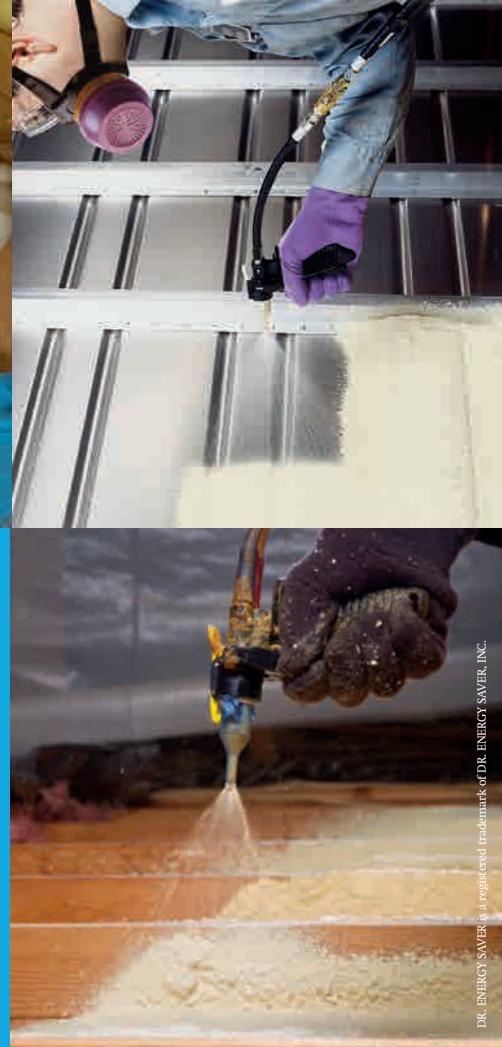
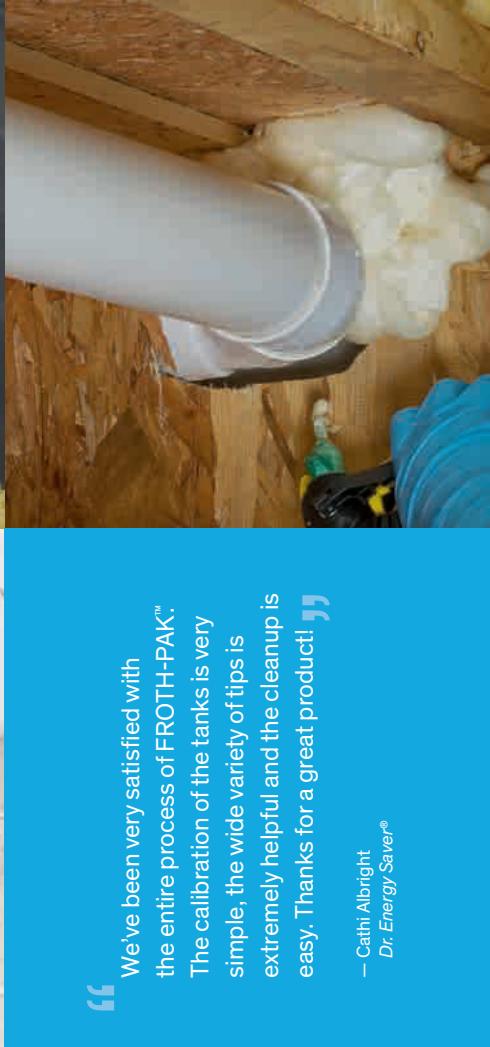
Efficiency – FROTH-PAK® Systems help the building use less energy, resulting in lower utility bills

Durability – FROTH-PAK® Systems reduce air and moisture infiltration, helping to prevent rot, decay and other issues that are potentially harmful to structural integrity

Health – Helps improve indoor air quality as the result of fewer entry points for dust, dirt, allergens and pests

Whether you're working on new construction or an existing building, above or below grade, FROTH-PAK® Systems combat air leaks and moisture intrusion by insulating and sealing on every level. Go to SprayFoamAtDow.com for more information.

Increased profitability – The bottom line: You can have a greater bottom line



We've been very satisfied with the entire process of FROTH-PAK. The calibration of the tanks is very simple, the wide variety of tips is extremely helpful and the cleanup is easy. Thanks for a great product! ☺

– Cathi Albright
Dr. Energy Saver®



Advantages of using FROTH-PAK™ systems.

High Performance

- INSTA-FLO™ Dispensing Spray Gun is designed to reduce overspray and waste by maintaining on ratio foam
- Minimal cure time, with reentry allowed after only 1 hour** compared to 24 hours when high-pressure drum systems are used. This ensures that you can quickly move on to your next job and your customers can quickly move back into their home or business
- Insulation is Class A fire-rated (flame spread index of 25 or less) and NFPA286 compliant so it can be left exposed in roof/wall junctures up to 6' in height, 2' in depth and unlimited length without a thermal barrier*
- Can result in estimated savings of up to 30% on heating and cooling costs for your customers
- Provides an effective air barrier in new construction
- Fills cavities, penetrations and gaps greater than 2"
- Two-component polyurethane foam quickly cures in less than a minute

Quality

- Simply put, this is one of the highest quality foams on the market, due to:
 - the best yield
 - quickest curing time
- Reduces moisture intrusion, which can lead to mold, mildew, rot and decay
- Provides similar closed-cell foam performance as high-pressure rig-applied products, with less up-front capital investment (refillable kits only)
- Can be used internally or externally, above or below grade, making it the right product for the job
- Bonds to almost any construction surface, including wood, rigid foam, masonry, metal, drywall and more
- Provides sound damping quality, in addition to its sealing and insulating properties
- Helps keep pests from entering the home or building

Simplicity

- Reduces learning curve since each system uses the same regulators and accessories
- Portable, self-contained, easy-to-handle, all-in-one kits (FROTH-PAK™ Kits)
 - Requires no external power source or extra gas cylinders
 - FROTH-PAK™ Refill System includes tanks, regulator, hose assembly, gun applicator and anti-crossover gun nozzles
 - Helps make homes and buildings more energy efficient for a minimal initial cost, leading to lower energy costs and more comfortable buildings
 - Allows you to offer additional services with a small capital investment
 - If you already have spray rigs, FROTH-PAK™ Systems allow you to secure smaller jobs without tying up a rig

- * Check your local building codes.
- ** R-value per inch: 1" x 1" x 1" IBIU; aged LTR measured at 2" thick.
- † Full ventilation guidelines in the online Training Center at dowbuildingsolutions.com

Let the Good Foam Flow.

FROTH-PAK™ Systems offer the best dispensers in the industry.

- INSTA-FLO™ Dispensing Spray Gun is:
 - Sturdy
 - Lightweight
 - Reusable
 - Comfortable to use
- Reduces overspray and waste by:
 - Controlling flow rate
 - Precisely metering output
 - Protecting against accidental discharge with a flip-up safety mechanism
 - Emptying precisely on ratio, resulting in better foam quality

Depending on the size of your job, and whether you have a dedicated insulation and air sealing business, you can choose either a self-contained, portable kit with a convenient carrying handle or reusable, refillable kits that come in a variety of sizes. Another benefit: You'll also realize lower long-term cost of ownership compared to drum and rig systems, due to:

- Less up-front capital investment
- Minimal setup time and less equipment maintenance



NOTE: The self-contained portable kits contain everything you need, with no additional gas cylinder or electricity required.

What to use. When to use it.



FROTH-PAK™ Foam Insulation

With its Class A fire rating (flame spread index of 25 or less), it can be left exposed in roof/wall junctures up to 6' in height behind a thermal barrier, qualifying as effective insulation for:

- Stud wall cavities
- Cold floors above unheated areas (such as a living area above a garage)
- Rim and band joists
- Crawl Space walls and ceilings
- Attic ductwork
- Plumbing wall pipe insulation and support

* Check your local building codes.



FROTH-PAK™ Foam Sealant

It provides a continuous barrier against air infiltration and helps seal out moisture, dust, pests and smoke. Primarily used to seal gaps less than 4" wide in:

- Wall/attic penetrations
- Electrical, mechanical and plumbing penetrations
- Attic hatches
- Wall cavities and around pipes
- Roof/wall junctures
- Rim joists
- Manufacturing and repair of insulated vehicles and containers

Note: FROTH-PAK™ Foam Sealant is not approved for full coverage.

An airtight case for FROTH-PAK™.

What is FROTH-PAK™ and why is it the right choice?

Designed for professional use, FROTH-PAK™ is a two-component, chemically cured polyurethane foam that comes either as a sealant or a Class A fire-rated insulation. Both quickly expand to fill cavities, penetrations and gaps greater than two inches. FROTH-PAK™ helps improve the comfort, health, safety, performance and energy efficiency of any building – and all of those factors can lead to an improved bottom line when satisfied customers recommend you to others.

NOTE: The self-contained portable kits contain everything you need, with no additional gas cylinder or electricity required.

Where does FROTH-PAK™ make sense?

Dispensers of distinction.

Accurate, economical application of spray foam is easier with Dow's patented anti-crossover nozzles specially designed to help eliminate chemical crossover in FROTH-PAK™ Systems. Here are just a few of the features that make our reusable, easy-to-change nozzles the industry's best:

- Patented nozzle design helps reduce potential for plugged hoses
- Multiple nozzle types offer a variety of outputs and spray patterns
- Side wing design provides quick gun attachment
- Clear dispensing tips make it easy to identify used nozzles
- Tapered design improves mixing for enhanced foam quality
- Dow offers the widest selection of nozzle types in the industry today, helping you find the spray pattern, output and coverage for any job.

Fill'er up, again and again.

FROTH-PAK™ Refill Systems do the same great insulating and air sealing jobs as FROTH-PAK™ Kits but, as the name implies, are refillable so you can use them over and over. They're great if you are new to spray foam or insulation/air sealing, because they supply closed-cell foam with performance similar to drum systems but help you enter the business without the expense and maintenance of drums and rigs. At the same time, they're excellent if you already own a spray rig but are looking to secure smaller jobs without tying up a rig.

How are FROTH-PAK™ Refills different than FROTH-PAK™ Kits?

- Bulk supply steel tanks that are pressurized on-site
- Containers are returnable and refillable, so you can reuse equipment again and again
- Longer, customizable hose lengths make it easier to get to hard-to-reach areas
- FROTH-PAK™ Refills are not disposable
- Technical installation and training is required
- Nitrogen is required (not supplied)

FROTH-PAK™ Refill System benefits

Affordable

- Lower long-term cost compared to drum and rig system
- Less up-front capital investment
- Minimal setup time

Take the chill off.

Don't let chilly temperatures leave your business out in the cold. The Arctic Pak heated hose system helps maintain consistent temperatures when winter weather comes around. Converting a FROTH-PAK™ Refill System is easy with an Arctic Pak Starter Kit that includes:

- Arctic Pak heated hose wrap and controller
- Extended hose length
- INSTA-FLO™ Dispensing Spray Gun
- Regulator kit
- Two chemical on/off valves (tank-to-hose)
- Two inline on/off valves (hose-to-dispenser)
- Two replacement cylinder filters

The short answer: just about anywhere.

As you know, FROTH-PAK™ Foam Insulation and Sealant Kits quickly expand to fill cavities, penetrations and gaps greater than two inches. So you may think their uses only apply to homes and other buildings. While that's where the uses begin, it's not where they end – not even close.

	NOZZLE TYPE	OUTPUT	COVERAGE	DESCRIPTION
CAULKING		LOW	Caulked beam site 2 lb/min	Designed for precisely controlled dispensing of sealant to tight areas; minimizes overspray and waste
NS CONE/ SPRAY	Included in kit	MEDIUM	Small area 4 lb/min	Cylindrical spray pattern fills voids and cavities
FAN SPRAY	Included in kit	MEDIUM	Wide area 4 lb/min	Designed for flat applications (walls, roof and ceilings); can be used to smooth out orange peel finish
POUR		HIGH	Large volume 8-10 lb/min	Designed for filling large cavities; use in hidden cavity applications

Insulation

- Stud wall cavities
- Crawl space walls and ceilings
- Attic ductwork
- Plumbing, wall pipe insulation and support



Air Sealing

- Wall/attic penetrations
- Electrical, mechanical and plumbing penetrations
- Roof/wall junctions
- Attic perimeter
- Rim joists
- Around pipes within wall cavities
- Odor control
- Reduces entry of dust, pests and allergens



Transportation/Marine

- Sealant, insulation, structural stability and sound damping for:
 - RVs
 - Refrigerated truck trailers
 - Aircraft
 - Rail cars
 - EMS vehicles



Heating/Ventilating/Air Conditioning

- Pipe (including geothermal) insulation
- HVAC duct sealant
- Penetrations sealant
- Stud wall cavities
- Ceiling/floor/wall penetrations sealant



More Uses

- AGRICULTURE
 - Light control and insulation in poultry houses
 - Silo and grain storage bin sealant
 - Pest control
- PLUMBING
 - Sealant around copper or PVC pipes and penetrations
 - Bathtub/shower base stabilizer
 - Fiberglass bathtub repair
- COLD STORAGE
 - Floor seams
 - Fluted roof decks
 - Walk-to-wall intersects
- POOL AND SPA
 - Insulation repair
 - Structural support
 - Sound damping
- OTHER
 - Crack, void and hole sealant
 - Sealant for irregular voids
 - Sealant to maintain negative air pressure

Our products help you build in better performance.

FROTH-PAK™ offers a great savings.

FROTH-PAK™ Systems are a cost-effective way to increase the energy efficiency and value of buildings and, at the same time, can help expand your business and bottom line.

It comes as no surprise that one way to increase your profitability is to lower your cost of materials. FROTH-PAK™ Kits and Refills make that easy by offering solutions in a range of sizes to meet your needs.

And the value of FROTH-PAK™ grows when you compare FROTH-PAK™ Refills to the big rigs:

- You get closed-cell performance similar to high-pressure, rig-applied products but with less up-front capital investment

- You can leverage your current business and take on smaller jobs without tying up a spray rig

- Training and technical support for FROTH-PAK™ is supplied by Dow

Lower long-term cost of ownership compared to drum and rig system

- Less up-front capital investment

- Minimal setup time

- Less equipment maintenance (rig system maintenance can average \$5,000-\$10,000 annually)

- Low-cost replacement parts/gun replacement is approximately \$60

- No specialized technician required to maintain/refill

- Satisfied customers because they can return to their home or building after 1 hour versus the 24-hour period necessary when high-pressure spray foam is dispensed*

- Dow pays the freight to and from the jobsite on refill containers, and there is no deposit fee

- Easy access to replacement parts and materials

Our people help you create bigger business.

Expertise that extends beyond our products.

As a building professional, you get much more than exceptional products when you work with Dow Building Solutions. You also benefit from an industry-leading level of sales and technical support in the area of building science. We deliver a wealth of resources to resolve day-to-day challenges and help your business grow. You can count on us for:

- An extensive sales force working to generate demand for your business and providing training to you and your teams

- In-house technical support to help you meet and exceed building codes

- Product support to assist you with installations and implementations, including the process of calibrating the cylinders

- National marketing initiatives that drive education and demand

- Industry support that offers education, training and other programs to keep you connected and informed

- R&D specialists who are constantly creating new and enhanced systems and applications to help you stay ahead of codes – and your competition

Performance that outperforms the competition.

High-Pressure Rig System

Higher long-term cost of ownership compared to FROTH-PAK™ due to:

- Higher upfront capital investment

- More setup time

- Higher equipment maintenance and costly replacement parts

- Requires specialized technician to maintain/repair

- 24-hour reentry time for occupants

- Difficult to cover smaller jobs

Contractors say it best:

“Dow Building Solutions has been a great asset for my company. The training, the support, the service. They're there for me, helping my business grow. Plus, FROTH-PAK™ has given my business another source of revenue. I just tell my customers the kind of money they can save on their heating bills, and they see the value.”

— Ken Sheldon

Metro Home Insulation

SEE HOW FROTH-PAK™ KITS RATED*

	FROTH-PAK™	MAJOR COMPETITORS
Consistent Quality application (98% (see table 1))	98%	20% to 60%
On/Off (0.95–1.20 A/B)		Becomes too fast to be controllable and too slow to be useful
Flow Rate	Most consistent from start to finish (see table 2)	
Reliability dispensing system	Anti-crossnozzles	Standard nozzles
Time to Dispense Kit (min)	9–10 for a 200 kit	10–23

Table 1:
Application on Ratio

Table 2:
200 Kit Flow Rate



* Full kit ventilation guidelines in the online Training Center at dowbuildingsolutions.com. Testing conducted by Dow Building Solutions using 200/205 sized kits. There is currently no third-party standard to make these evaluations. All product was sprayed within the kit's expiration date at a nominal room temperature of 75°F-85°F, 24°C-29°C. Spray equipment was used as supplied with each kit and sprayed as per manufacturer's instructions using supplied cone spray nozzles.

More than 65 years of being years ahead.

At Dow, we are constantly creating new and enhanced products to help you stay ahead of codes – and your competition. When you use these products, you're backed by the name that is an industry leader in building science and performance. Our team of building-envelope engineers and scientists work with contractors, builders, specifiers, architects and designers to integrate the right solutions for the right applications to maximize thermal, air and moisture management of the building envelope. With Dow Building Solutions as your partner and product provider, you get all the benefits of working with building-envelope experts. Our team provides an unprecedented level of sales and technical support – combine with industry-leading research and product development – to help you provide better buildings and grow your business. Dow offers the people, knowledge and relationships to address the needs of your business through:

- Our team of experts is here to help you outperform.

With Dow Building Solutions as your partner and product provider, you get all the benefits of working with building-envelope experts. Our team provides an unprecedented level of sales and technical support – combine with industry-leading research and product development – to help you provide better buildings and grow your business. Dow offers the people, knowledge and relationships to address the needs of your business through:

- An in-house customer service team that is trained to support you and your business from your first order – and beyond

- Technical support to help you with any installation or application questions

- Our in-the-field sales team that consults with your team to help ensure you're offering the best solutions to your customers

- An in-house sales team that consults with your team to help ensure you're offering the best solutions to your customers





Big job? Small job? Any job.

No matter the size, there's a FROTH-PAK® Solution to get the job done.

Part of being the leader in the fight against air leaks is making sure there's a solution for any job.

SIZES

FROTH-PAK® Sealant Kits: 12, 120, 200, 620

FROTH-PAK® Insulation Kits: 20, 650

FROTH-PAK® Sealant and Insulation Refills: 17, 27, 60, 120, 350

FROTH-PAK® FoamInsulation Kits

PRODUCT	THEORETICAL YIELD, BOARD FEET AT 1" THICK	R-VALUE AGED (INITIAL)
FROTH-PAK® 210	210	6.1 (6.8)*
FROTH-PAK® 650	650	6.1 (6.8)*

FROTH-PAK® FoamInsulation Refillable Cylinders

PRODUCT	THEORETICAL YIELD, BOARD FEET AT 1" THICK	REACTION	DENSITY (LB/F ³)	R-VALUE AGED* (INITIAL)
FROTH-PAK® 17	2.150	Quick	1.75	6.1 (6.8)**
FROTH-PAK® 27	3.800	Quick	1.75	6.1 (6.8)**
FROTH-PAK® 60	7.160	Quick	1.75	6.1 (6.8)**
FROTH-PAK® 120	16.110	Quick	1.75	6.1 (6.8)**
FROTH-PAK® 350	45.820	Quick	1.75	6.1 (6.8)**

FROTH-PAK® Sealant Kits

PRODUCT	THEORETICAL YIELD, BOTTLED FEET AT 1" THICK (W)	R-VALUE AGED (INITIAL)
FROTH-PAK® 12	12 (0.03)	4.6 (6.3)
FROTH-PAK® 20	120 (0.28)	5.5 (6.0)
FROTH-PAK® 200	200 (0.46)	5.5 (6.0)
FROTH-PAK® 620	620 (1.46)	5.5 (6.0)

FROTH-PAK® Sealant Refillable Cylinders

PRODUCT	THEORETICAL YIELD, BOARD FEET AT 1" THICK (W)	R-VALUE AGED (INITIAL)
FROTH-PAK® 17	2.060 (0.38)	5.5 (6.0)
FROTH-PAK® 27	3.240 (0.76)	5.5 (6.0)
FROTH-PAK® 60	6.860 (1.62)	5.5 (6.0)
FROTH-PAK® 120	15.430 (3.64)	5.5 (6.0)
FROTH-PAK® 350	43.890 (103.6)	5.5 (6.0)

Included in each FROTH-PAK® Kit

- ISO tank
- Polyol tank
- Gun hoses
- INSTA-FLO™ Dispensing Spray Gun
- Anti-crossover nozzles

* The theoretical yield has become an industry standard for identifying certain sizes of two-component kits. Theoretical yield calculations are performed in laboratory conditions, without taking into account the loss of blowing agent or the variations in application methods and types.

** R-value per inch x thickness. Age of ITI sealants at 27°F.

† R-value per inch x thickness. Age of ITI sealants at 77°F.

What does it all mean?

The last word on the first name in insulation and sealant.

FROTH-PAK® comes as either a sealant or a Class A fire-rated insulation. Both quickly expand to fill cavities, penetrations and gaps greater than two inches to block air infiltration, enhance thermal performance and manage moisture on insulation jobs of all sizes. FROTH-PAK® helps improve the comfort, health, safety, performance and energy efficiency of any building – and all of those factors can help improve customer satisfaction and, ultimately, your bottom line.

You also benefit from an industry-leading level of training and technical support to help ensure you have everything you need. Plus, we make it easy for you to purchase FROTH-PAK® Systems:

- Through your Dow sales representative
- Dow pays the freight to and from the jobsite on refill containers, and there is no deposit fee

Required Personal Protective Equipment

- NIOSH-approved full-face or halfmask air-purifying respirator with an organic vapor sorbent and a P100 particulate filter
- Protective clothing or impermeable coveralls, including long sleeves for full-body coverage
- Chemical-resistant gloves (coated with nitrile, butyl rubber, neoprene or PVC)
- Goggles or safety glasses (if not using a full-face respirator)

Coveralls Respirator Eye Protection Gloves



Occupants save every year.

You can explain the comfort and efficiency FROTH-PAK® delivers or talk about how this higher performance building solution helps improve the value of any structure. But home and building owners want to know about the return on investment for FROTH-PAK® products.

* Savings based on comprehensive air sealing study involving interval testing consisting of field-verified blower door testing and simulated energy modeling with the software program RETScreen® Version 2.2. Blower door testing was conducted by Karmann Laboratories, Inc., Dow Jones Thermal Performance of the Exterior Envelope of Whole Buildings (2010).



ENERGY SAVINGS**

PROJECT	Seal/Repair and Seal Date
FROTH-PAK® Foam Insulation	\$125 annually

* Find full ventilation guidelines in the online Training Center at dowbuildingsolutions.com

Outperform the competition with **Dow Building Solutions**

For more than 65 years, Dow has been a proven industry-leader in above and below grade air sealing solutions, including FROTH-PAK™ Systems. Since the invention of STYROFOAM™ Brand XPS Insulation, Dow has helped contractors differentiate themselves in the marketplace and build better-performing, energy-efficient homes and buildings for customers. See our latest offerings at dowbuildingsolutions.com



In the U.S.

The Dow Chemical Company
Dow Building Solutions
200 Larkin Center
Midland, MI 48674

Sales & Technical Information

866-583-BLUE (2583)

Sales Information

800-232-2436 (English)

SprayFoamAtDow.com
dowbuildingsolutions.com

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Dow Polyurethane Foam Insulation and Sealants

CAUTION: When cured, these products are combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F (116°C). For more information, consult Material Safety Data Sheets, call Dow at 1-866-583-BLUE (2583) or contact your local building inspector. In an emergency, call 1-989-636-4400 in the U.S. or 1-519-339-3711 in Canada. When air sealing buildings, ensure that combustion appliances, such as furnaces, water heaters, wood burning stoves, gas stoves and gas dryers, are properly vented to the outside. See website: <http://www.epa.gov/iaq/homes/hip-ventilation.html>.

FROTH-PAK™ Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read the instructions and Material Safety Data Sheets carefully before use. Wear protective clothing (including long sleeves), gloves, goggles or safety glasses, and proper respiratory protection. Do not breathe vapor or mist. Use only with adequate ventilation. It is recommended that applicators and those working in the spray area wear respiratory protection. Increased ventilation significantly reduces the potential for isocyanate exposure; however, supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a particulate filter may still be required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits. For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective, use a positive-pressure, air-supplying respirator (air-line or self-contained breathing apparatus). Spraying large amounts of foam indoors may require the use of a positive-pressure, air-supplying respirator. Contents under pressure.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.