Product Information Sheet – For U.S. Only

FROTH-PAK™

Froth-Pak™ Foam System

Two-Component, Quick Cure, Professional Spray Foam Kit for Class-A Fire-Rated Insulating and Air Sealing

Features and Benefits

Froth-Pak™ Foam System is the complete, Class-A Fire Rated, self-contained and easily portable kit for professional contractors to insulate cavities and create a continuous air-barrier by sealing penetrations and joints.

Froth-Pak™ Foam System patent-pending, industry-leading, ergonomic and customizable dispensing system helps ensure consistent flow rate, on-ratio application and complete dispensing of product with minimal to no overspray. The flexible hose assembly means easy movement and ergonomic dispensing. Uses include roof and wall junctions, wall and attic, flash-and-batt applications, crawlspaces, basements, electrical, mechanical and plumbing penetrations in the building envelope, wood bonds, rigid foam, masonry, metal, drywall and more. With a Class-A flame spread rating, **Froth-Pak™ Foam System** can be used in a wide range of interior and exterior industrial, commercial, institutional, and residential settings, reducing the potential for unwelcome moisture, mold, mildew, allergens and rot.

TABLE 1: Sizes and Theoretical Yields for Froth-Pak™ Foam System

Product	Theoretical Yield,[1] board ft
Kits	
Froth-Pak™ 200	200
Froth-Pak™ 630	630
Refillable Cylinders	
Froth-Pak™ 17	2,072 bd. Ft.
Froth-Pak™ 27	3,505 bd. Ft.
Froth-Pak™ 60	6,909 bd. Ft.
Froth-Pak™ 120	15,563 bd. Ft.

[1] The theoretical yield has become an industry standard for identifying certain sizes of two-component kits. Theoretical yield calculations are performed in perfect laboratory conditions, without taking into account the loss of blowing agent or the variations in application methods and types. Theoretical Yield is calculated at 1" thick.

* Froth-Pak™ Foam Insulation is a former product of The Dow Chemical Company.
** Actual cure time will depend on temperature, foam thickness, the specific nozzle used, etc.

Ease of Use

- Froth-Pak™ can be applied up to 2 inches thick in one pass. Additionally, a 30-second cure time and 1-hour re-entry with proper ventilation results in time-efficient installation
- Provides an R-value of 6.2 per inch and is Class-A Fire Rated up to 2 inches thick (12.2 R-value)
- Anti-crossover nozzle and ergonomic dispensing system results in minimal to no overspray to help ensure consistent flow rate, on-ratio application, and complete dispensing of product
- Available in refillable cylinders or disposable kits
- Useful for commercial applications including spray polyurethane foam roof repair, sealing roof perimeters, and parapet walls
- Useful for multiple applications, including roof and wall junctions, wall and attic penetrations, basements and crawlspaces, electrical, mechanical, and plumbing penetrations, as well as other gaps, cracks, or crevices in the building envelope
- Complete and portable two-component, quick-cure polyurethane foam kit that fills cavities, penetrations, cracks, and expansion joints
- Contains no ozone depleting chemicals or HFCs
- Blocks air infiltration and helps meet air change per hour (ACH) code requirements, there by reducing building energy costs
- Reduces the potential for moisture, mold, mildew, allergens, and rot
- One-hour occupant re-entry with proper ventilation after dispensing
- Bonds to wood, rigid foam, masonry, metal, drywall and more
- Formulation and dispensing systems are patent-pending
- GreenCircle® Certified; LEED V4 Compliant; ICC listed

Available Sizes

Froth-Pak™ Foam System is typically sold as a complete 39 lb. (Froth-Pak™ 200) or 111 lb. (Froth-Pak™ 630) portable kit that includes pressurized "A" and "B" cylinders, Insta-Flo™ dispensing gun/hose assembly, and accessories.

Froth-Pak™ Foam System is also available in refillable, returnable cylinders for applications requiring a large amount of foam. See Table 1 for yield and size information.

Properties

Review all instructions and Safety Data Sheet (SDS) before use. Please contact Dupont at 1-866-583-2593 or via Live Chat at Froth-Pak.com when additional guidance is required for writing specifications that include this product.

TABLE 2: Typical* Physical Properties of Froth-Pak™ Foam System

Property and Test Method	Value
Nominal Density, ASTM D1622, lb/ft^3	1.75
Thermal Resistance[1] per inch, ASTM C518, ft^2·h·°F/Btu, R-value, min. Initial Aged 180 days at 75°F – 1.0" Aged 180 days at 75°F – 2.0"	 6.7 6.2 (when sprayed as 1" thickness) 12.2 (6.7/in when sprayed as 2" thickness)
Air Leakage, ASTM E283 0.012 L/sec-m^2 @ 75Pa ASTM E2178 0.0088 L/sec-m^2 @ 75Pa	 0 0
Water Vapor Permeance, ASTM E96 -40 - 0.3 perm @ 1" thick perm @ 2" thick	 5.4 3.1
Dimensional Stability, ASTM D2126, % volume change 100°F/97% RH @ 2wk 158°F/97% RH @ 2wk -40°F/amb RH @ 2wk 158°F/amb RH @ 2wk	 1.5 14 2.8 2.1

[1] R means resistance to heat flow. The higher the R-value, the greater the insulating power.
* These properties are typical but do not constitute specifications.

Testing

Applicable Standards – ASTM International

- **C203** – Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- **C273** – Standard Test Method for Shear Properties of Sandwich Core Materials
- **C518** – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus
- **D1621** – Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- **D1622** – Standard Test Method for Apparent Density of Rigid Cellular Plastics
- **D1623** – Standard Test Method for Tensile and Tensile Adhesion Properties of Rigid Cellular Plastics
- **D2842** – Standard Test Method for Water Absorption of Rigid Cellular Plastics
- **E96** – Standard Test Methods for Water Vapor Transmission of Materials
- **E283** – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
- **E2178** – Standard Test Method for Air Permeance of Building Materials

Codes

Froth-Pak™ Foam System complies with the following codes:

- ICC ESR-3228
- Underwriters Laboratories, Inc. (UL) Classified, see Classification Certificate R7813
- National Fire Protection Association – per NFPA 286 testing, can be left exposed in non-fire-resistant-rated roof/wall junctures, maximum 6" high and 2" deep (unlimited width)

Contact your DuPont sales representative or local authorities for state and local building code requirements and related acceptances.

Installation

Use Conditions

- Complete operating instructions are provided with every **Froth-Pak™ Foam System** purchase. Read all information and cautions before application.
- Check with local codes prior to use. If used in an exterior setting, a coating must be applied for ultraviolet (UV) protection.

Application

- **Froth-Pak™ Foam System** may be used as an air barrier material for wall/floor and roof/wall intersections in the exterior building envelope when installed at a maximum thickness of 2 inches by a width of 6 inches (the length is unlimited). Please see ICC ESR-3228 for a full list of approved applications.
- Avoid overfilling restricted spaces. The reaction of these chemicals causes expansion and may exert enough force to cause an uncontrolled stream of foam, spraying the work area, and possibly the operator.
- Re-entry allowed after only one hour post-application with proper ventilation after dispensing.

Removal

Cured foam is difficult to remove. Cured foam must be mechanically removed or allowed to wear off in time.

Equipment

Dispensing gun/hose assembly and accessories included in kit. When Froth-Pak™ is purchased as individual A and B sides, the gun hose assembly and accessories are sold separately.

* See full ventilation guidelines at building.dupont.com.

Safe Handling

WARNING: For Professional Use Only – Froth-Pak™ Foam System cylinders contain isocyanate, blowing agent and polyols under pressure. Read and follow the product manual and the Safety Data Sheets (SDSs) (formerly MSDSs or Material Safety Data Sheets) carefully before use. The safety precautions and personal protective equipment indicated below are designed to protect the user and allow for the safe use and handling of the spray system. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- **Froth-Pak™ Foam System** will adhere to most surfaces and skin. Avoid ALL skin contact. Wear gloves and protective clothing. Cured foam is difficult to remove. Cured foam must be mechanically removed or allowed to wear off in time.
- WARNING: CURED FOAM IS COMBUSTIBLE AND WILL BURN IF EXPOSED TO OPEN FLAME OR SPARKS FROM HIGH ENERGY SOURCES. These products should not be sprayed where the foam may come into contact with hot surfaces, such as heaters, furnaces, fireplaces, or recessed lighting fixtures. The foam should NOT be exposed to temperatures over 240°F (116°C).
- Avoid overfilling restricted spaces. The reaction of these chemicals causes expansion and may exert enough force to cause an uncontrolled stream of foam, spraying the work area, and possibly the operator.
- Froth-Pak™ contains isocyanate, blowing agent, and polyol. Read all instructions and (M)SDS carefully before use. Wear protective clothing and cover all skin (including long sleeves), gloves, goggles or safety glasses, and proper respiratory protection.
- Do not breathe vapor or mist. Use only with adequate ventilation and respirator. See required PPE.
- Isocyanate is irritating to the eyes, skin, and respiratory system, which may cause sensitization by inhalation or skin contact.
- Contents are under pressure.

Personal Protective Equipment (PPE)

Personal protective equipment (PPE) used during the handling of Froth-Pak™ foam products must at a minimum include:

- Protective clothing or impermeable coveralls, such as a Tyvek® coverall suit, including long sleeves (no skin should be exposed)
- Chemical-resistant gloves that are coated with nitrile, butyl rubber, neoprene, or PVC; goggles or safety glasses unless using a full-face respirator
- Proper respiratory protection, see section 2.2 of the manual.

PPE should be worn by:

- Applicator
- Anyone assisting applicator
- Other workers in the room within 25 feet of the applicator
- Anyone entering the spray area less than one hour post spraying with proper ventilation

If PPE is contaminated during application, properly discard and replace immediately. Do not consume or store food or tobacco in the work area. Make sure to wash your hands and face before eating or smoking after application. Use protective clothing, including long sleeves, gloves, and goggles.

DO NOT breathe vapors or spray. Workers must be respirator fit tested per federal (U.S. OSHA) requirements. Employers must have a documented respiratory and PPE plan per federal requirements including considerations for frequency of fit testing

and health exams. Depending on the area of spray, the amount of foam being sprayed, the amount of ventilation, and the type of spray nozzle used, respiratory protection equipment may differ to provide optimum protection to avoid exceeding established exposure limits of the chemicals. Proper respiratory protection options include ACGIH, OSHA, WEEL, or other applicable limits.

- NIOSH-approved full-face or half-mask airpurifying respirator with an organic vapor sorbent and a P100 particulate filter
- For situations where the atmospheric levels may exceed the level for which an air-purifying respirator is effective at maintaining exposure levels below ACGIH, OSHA, WEEL, or other applicable limits, use a positive-pressure, air-supplying respirator (air line or self-contained breathing apparatus), or supplied air.
- Change out respirator cartridges according to your employer's change-out schedule (typically 8 hours or end of shift).
- The spray foam applicator and anyone within 25 feet of the applicator must use approved respiratory protection.
- If there is ever a doubt as to the potential limits for worker exposure, DuPont always recommends: IF ATMOSPHERIC LEVELS EXCEED THE LEVEL FOR WHICH AN AIR-PURIFYING RESPIRATOR IS EFFECTIVE.
- A positive-pressure, air-supplying respirator, such as an air line or self-contained breathing apparatus, is recommended for optimal respiratory protection.

Disposal

Dispose of any residual Froth-Pak™ product, coated debris, or solvent in accordance with applicable federal, state, and local government regulations.

See the Product Manual for details.

For more information visit
Froth-Pak.com
or call 1-866-583-2583

DuPont 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. For more information, consult (M)SDS call DuPont at 1-866-583-2583 or contact your local building inspector. In an emergency, call 1-866-583-2583. 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, blowing agent and polyol. Read all instructions and (M)SDS carefully before use. Wear protective clothing and cover all skin (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 insulation could greatly affect moisture and the potential for mold formation. No material supplier including DuPont can give assurance that mold will not develop in any specific system.

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