Froth-Pak™ Foam Insulation

Two-Component, Quick-Cure, Professional Insulation Kit

FEATURES/BENEFITS

Description

Froth-Pak™ Foam Insulation* is a complete and portable two-component, quick-cure polyurethane foam that fills cavities, penetrations, cracks and expansion joints greater than 2 inches wide. Unlike one-component foam, Froth-Pak™ Insulation is chemically cured – significantly reducing curing time by dispensing, expanding and becoming tack-free in seconds.

Froth-Pak™ Insulation's industry-leading, customizable dispensing system helps ensure consistent flow rate, on-ratio application and complete dispensing of product. Uses include roof and wall junctions, wall and attic, 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™ Insulation** 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.

Ease of Use

Froth-Pak™ Foam Insulation is:

- Chemically cured foam with significantly reduced curing time
- Able to skin over in 30–40 seconds and cure in minutes**
- 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 residential applications including roof and wall junctions; wall and attic penetrations; electrical, mechanical and plumbing penetrations and other gaps, cracks or crevices in the building envelope

Available Sizes

Froth-Pak™ Insulation is typically sold as a complete 43 lb. (Froth-Pak™ 210) or 125 lb. (Froth-Pak™ 650) portable kit that includes pressurized "A" and "B" cylinders, plus dispensing gun/hose assembly and accessories. **Froth-Pak™ Insulation** is also available in refillable, returnable cylinders for commercial applications requiring a large amount of foam. See Table 1 for yield and size information.

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

Product	Theoretical Yield,[1] board ft
Kits	
Froth-Pak™ 210	210
Froth-Pak™ 650	650
Refillable Cylinders	
Froth-Pak™ 17 (gal)	2,150
Froth-Pak™ 27 (gal)	3,480
Froth-Pak™ 60 (gal)	7,160
Froth-Pak™ 120 (gal)	16,110
Froth-Pak™ 350 (gal)	45,820

[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.

* 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.

PROPERTIES

Review all instructions and (Material) Safety Data Sheet ((M)SDS) before use. Please contact DuPont at 1-866-583-2583 when additional guidance is required for writing specifications that include this product.

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

Property and Test Method	Value
Nominal Density, ASTM D1622, lb/ft^3	1.75
Thermal Resistance[3] per inch, ASTM C518, ft^2·h·°F/Btu, R-value, min.	
Initial	6.2
Aged 180 days at 75°F – 1.0"	6.2 (when sprayed as 1" thickness)
Aged 180 days at 75°F – 2.0"	12.2 (6.2/in when sprayed as 2" thickness)
Air Leakage,	
ASTM E283 0.012 L/sec-m^2 @ 75Pa	0
ASTM E2178 0.0088 L/sec-m^2 @ 75Pa	0
Water Vapor Permeance, ASTM E96 -40 - 0.3	
perm @ 1" thick	6.2
perm @ 2" thick	6.2
Water Absorption, ASTM D2842, % by volume	3.2
Dimensional Stability, ASTM D2126, % volume change	
100°F/97% RH @ 1wk	0.7
158°F/97% RH @ 1wk	8.3
-40°F/amb RH @ 1wk	0.3
158°F/amb RH @ 1wk	3.1
Compressive Strength, ASTM D1621, lb/in^2, parallel	17.2
Tensile Strength, ASTM D1623, lb/in^2, parallel	29.0
Maximum Service Temperature, °F	240

[1] Tested at 2" thickness, full coverage.
[2]This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
[3] 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.

INSTALLATION

Use Conditions

- Complete operating instructions are provided with every **Froth-Pak™ Foam Insulation** 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™** 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.
- **Froth-Pak™ foam** will adhere to most surfaces and skin. Avoid ALL skin contact. Wear gloves and protective clothing.
- Re-entry allowed after only one hour post-application.

Curing

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

Equipment

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.

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

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

Notice

Froth-Pak™ Insulation complies with the following codes:

- 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.

HANDLING

WARNING: For Professional Use Only – Read and follow the entire Handling section and the Safety Data Sheets (SDSs, formerly MSDSs or Material Safety Data Sheets) carefully before use. The information below is designed to protect the user and allow for safe use and handling of Froth-Pak™ products. Follow all applicable federal, state, local and employer regulations.

Precautionary Statements

- **Froth-Pak™ foam** 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 240F (116C).
- 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™ Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon 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.
- Isocyanate is irritating to the eyes, skin and respiratory system, and 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™ products must at a minimum include:

- Protective clothing including long sleeves, gloves, and goggles.
- 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.
- 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.

Disposal

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

For more information visit frothpak.com/insulation or call 1-833-338-7668

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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 1-989-636-4400. 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. In Canada visit: http://archive.nrc-cnrc.gc.ca/eng/ibp/irc/bsi/83-house-ventilation.html. Froth-Pak™ Spray Polyurethane Foam contains isocyanate, hydrofluorocarbon 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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