

## DuPont™ Froth-Pak™ Foam Insulation

### Two-Component, Quick-Cure, Professional Insulation Kit

### **FEATURES/BENEFITS**

### **Description**

**DuPont™ 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™ 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 42 lb. (Froth-Pak™ 210) or 117 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

| Theoretical Yield, <sup>(1)</sup> board ft |
|--|
|  |
| 210  |
| 650  |
|  |
| 2,150                                      |
| 3,480                                      |
| 7,160                                      |
| 16,110                                     |
| 45,820                                     |
|  |

<sup>&</sup>lt;sup>1</sup>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.

<sup>\*</sup> Froth-Pak $^{\rm M}$  Foam Insulation is a former product of The Dow Chemical Company.

<sup>\*\*</sup> 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   |
|---|---|
| Flame Spread/Smoke Developed, <sup>(1), (2)</sup> ASTM E84/UL 723   | 25/400  |
| Nominal Density, ASTM D1622, lb/ft³   | 1.75  |
| Thermal Resistance <sup>(3)</sup> per inch, ASTM C518, ft²-h-°F/Btu, R-value, min.<br>Initial<br>Aged 180 days at 75°F – 1.0"<br>Aged 180 days at 75°F – 2.0" | 6.6<br>6.0 (when sprayed as 1" thickness)<br>12.2 (6.1/in when sprayed as 2" thickness) |
| Air Leakage,<br>ASTM E283, cfm/ft² @ 1.57 psf<br>ASTM E2178, L/s/m² @ 75 Pa   | 0<br>0  |
| Water Vapor Permeance, ASTM E96<br>perm @ 1" thick<br>perm @ 2" thick   | 6.4<br>3.2  |
| Water Absorption, ASTM D2842, % by volume   | 3.2   |
| Dimensional Stability, ASTM D2126, % volume change<br>100°F/97% RH @ 1wk<br>158°F/97% RH @ 1wk<br>-40°F/amb RH @ 1wk<br>158°F/amb RH @ 1wk                    | 0.7<br>8.3<br>0.0<br>3.1  |
| Compressive Strength, ASTM D1621, lb/in², parallel  | 17.2  |
| Tensile Strength, ASTM D1623, lb/in², parallel  | 32.0  |
| Maximum Service Temperature, °F   | 240   |

<sup>&</sup>lt;sup>1</sup> Tested at 2" thickness, full coverage.

### **INSTALLATION**

### **Use Conditions**

- Complete operating instructions are provided with every **DuPont**<sup>™</sup> **Froth-Pak**<sup>™</sup> **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**

- Avoid overfilling restricted spaces. Chemicals exert force during reaction, and expansion of foam may result in substrate deformation.
- Froth-Pak™ Insulation will adhere to most surfaces and skin. Do not get foam on skin. Wear protective clothing (including long sleeves), gloves, and goggles.
- Re-entry allowed after only one hour post-application.

Cure time will depend on temperature, foam thickness, the specific nozzle used, etc. Cured foam must be mechanically removed or allowed to wear off in time.

### Equipment

Each self-contained kit contains an ISO(A) cylinder, a Polyol (B) cylinder, 6 cone spray nozzles, 4 fan spray nozzles, and a 15-ft gun hose assembly (GHA).

<sup>&</sup>lt;sup>2</sup>This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

<sup>&</sup>lt;sup>3</sup> 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.

<sup>\*</sup> 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**<sup>™</sup> **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<sup>™</sup> Foam Insulation will adhere to most surfaces and skin. Do not get foam on skin. Wear protective clothing (including long sleeves), gloves, and goggles. Cured foam must be mechanically removed or allowed to wear off in time.
- Froth-Pak™ Insulation should not be used around heaters, furnaces, fireplaces, recessed lighting fixtures or other applications where the foam may come in contact with heat-conducting surfaces.
- Cured Froth-Pak<sup>™</sup> Insulation is combustible and will burn if exposed to open flame or sparks from high-energy sources. Do not expose to temperatures above 240°F.
- Avoid overfilling restricted spaces. Chemicals exert force during reaction, and expansion of foam may result in substrate deformation.
- Froth-Pak<sup>™</sup> spray polyurethane foam contains isocyanate, hydrofluorocarbon blowing agent and polyol. Do not breathe vapor or mist. Use only with adequate ventilation. Increased ventilation significantly reduces the potential for isocyanate exposure.
- 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.
- RECOMMENDED Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a particulate filter 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 positivepressure, air-supplying respirator such as an air line or self-contained breathing apparatus.

### **Disposal**

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



# For more information visit frothpak.com/insulation or call 1-866-583-2583

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**CAUTION:** This product is combustible. Protect from high heat sources. A protective barrier or thermal barrier may be required as specified in the appropriate building code. For more information, consult (Material) Safety Data Sheet ((M)SDS), call DuPont at 1-866-583-2583 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.

WARNING: Rigid foam insulation does not constitute a working walkable surface or qualify as a fall protection product.

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. Building and/or construction practices unrelated to building materials 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.