



# FROTH-PAK™ ULTRA Premium Foam Insulation

## 1. PRODUCT NAME

FROTH-PAK™ ULTRA Premium Foam Insulation

## 2. MANUFACTURER

The Dow Chemical Company  
Dow Building Solutions  
200 Larkin Center, 1605 Joseph Drive  
Midland, MI 48674  
1-866-583-BLUE (2583)  
Fax: 1-989-832-1465

dowbuildingsolutions.com

## 3. PRODUCT DESCRIPTION

### Basic Use

FROTH-PAK™ ULTRA Premium Foam Insulation is a professionally applied, two component, quick-cure polyurethane foam that fills cavities, penetrations and cracks. Unlike one-component foam, FROTH-PAK™ ULTRA Premium Foam Insulation is a chemically cured foam, significantly reducing curing time.

FROTH-PAK™ ULTRA Premium Foam Insulation dispenses, expands and becomes tack-free in seconds. The product will skin over in 30–40 seconds and will be completely cured in minutes.\*

The Class-A rating (flame spread of 25 or less) of FROTH-PAK™ ULTRA Premium Foam Insulation allows its use in a wide range of interior and exterior industrial, commercial, institutional and residential applications. With no length or width restrictions, the foam can be left uncovered up to 10" thick in uninhabitable attics and ventilated crawl spaces and up to 8" thick in rim joists. Check with local codes prior to use. If used in an exterior setting, a coating must be applied for ultraviolet (UV) protection.

### Sizes

FROTH-PAK™ ULTRA Premium Foam Insulation is typically sold as 17- 27- 60- and 120 gallon refills that include pressurized "A" and "B" cylinders. See Table 1 for yield and size information.

## 4. TECHNICAL DATA

### Applicable Standards ASTM International

- 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
- C1029 – Standard Specification for Spray-Applied Rigid Cellular Polyurethane Thermal Insulation
- D6226 – Standard Test Method for Open Cell Content of Rigid Cellular Plastics
- ASTM E84–Test for Surface Burning Characteristics of Building Materials

### Physical Properties

FROTH-PAK™ ULTRA Premium Foam Insulation exhibits the typical properties and characteristics indicated in Table 2 when tested as represented.

### Fire Information

Cured FROTH-PAK™ ULTRA Premium Foam 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.

### Code Compliances

FROTH-PAK™ ULTRA Premium Foam Insulation complies with the following codes:

- ICC ESR-3568

- IBC/IRC requirements for foam plastic insulation

- Intertek, Classified Class A (ASTM E84)

- ICC ES AC377 Appendix X modified NFPA 286: Being exposed in uninhabitable attics and ceilings

When used in conjunction with specific wall assemblies, FROTH-PAK™ ULTRA Premium Foam Insulation complies with the following code:

- NFPA 285-[06]: Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components, Using the Intermediate-Scale, Multistory Test Apparatus

Contact your local Dow representative for specific wall assemblies at 1-866-583-2583.

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

## 5. INSTALLATION

Complete operating instructions are provided with each FROTH-PAK™ ULTRA Premium Foam Insulation purchase. Read all information and cautions before application. **Note: Avoid overfilling restricted spaces. Chemicals exert force during reaction, and expansion of foam may result in substrate deformation.**

### Safety and Conditions of Use

- Read the instructions, ventilation requirements and Safety Data Sheets carefully before use.
- FROTH-PAK™ ULTRA Premium Foam Insulation contains isocyanate, hydrofluorocarbon blowing agent and polyol. Do not breathe vapor or mist.

**TABLE 1: Sizes and theoretical yields for FROTH-PAK™ ULTRA PREMIUM Foam insulation**

Refillable Cylinders	Theoretical Yield,† Board Ft
FROTH-PAK™ ULTRA 17 (gal)	1,622
FROTH-PAK™ ULTRA 27 (gal)	2,725
FROTH-PAK™ ULTRA 60 (gal)	5,405
FROTH-PAK™ ULTRA 120 (gal)	12,160

\* Actual cure time will depend on temperature, foam thickness, the specific nozzle used, etc.

† The theoretical yield has become an industry standard for two-component systems. 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.

Use only with adequate ventilation. It is recommended that applicators and those working in the spray area wear full-faced respiratory protection. Increased ventilation significantly reduces the potential for isocyanate exposure; however, supplied air or an approved full-faced 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, full-faced air-supplying respirator (air line or self-contained breathing apparatus). Spraying large amounts of foam indoors may require the use of a positive-pressure, full-faced air-supplying respirator.

- Isocyanate is irritating to the eyes, skin and respiratory system, and may cause sensitization by inhalation or skin contact.
- FROTH-PAK™ ULTRA Premium Foam Insulation will adhere to most surfaces

and skin. Do not get foam on skin. Wear protective clothing (including long sleeves), gloves, and goggles or safety glasses. Cured foam must be mechanically removed or allowed to wear off in time.

- The contents are under pressure.
- FROTH-PAK™ ULTRA Premium Foam 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™ ULTRA Premium Foam 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. FROTH-PAK™ ULTRA Premium Foam Insulation should be installed by an experienced applicator.

Visit [dowbuildingsolutions.com](http://dowbuildingsolutions.com) or contact your local Dow representative for more specific instructions.

## 6. AVAILABILITY

FROTH-PAK™ ULTRA Premium Foam Insulation is distributed through an extensive network. For more information, call 1-800-232-2436.

## 7. WARRANTY

Not applicable.

## 8. MAINTENANCE

FROTH-PAK™ ULTRA Premium Foam has a shelf life of six months when stored dry between 60°F and 90°F.

## 9. TECHNICAL SERVICES

Dow can provide technical information to help address questions when using FROTH-PAK™ ULTRA Premium Foam Insulation. Technical personnel are available to assist. For technical assistance, call 1-866-583-BLUE (2583).

## 10. FILING SYSTEMS

[dowbuildingsolutions.com](http://dowbuildingsolutions.com)  
[sprayfoamatdow.com](http://sprayfoamatdow.com)

**TABLE 2: TYPICAL PHYSICAL PROPERTIES<sup>(1)</sup> OF FROTH-PAK™ ULTRA PREMIUM FOAM INSULATION**

Property and Test Method	Value
Ambient (Substrate) Temperature Range, °F	45–95 (45–100)
Core Density, ASTM D1622, lb/ft <sup>3</sup>	2.3
Compressive Strength, ASTM D1621, lb/in <sup>2</sup> , parallel	21.7
Closed-Cell Content, ASTM D6226, minimum 90%	Pass
Thermal Resistance, ASTM C518, 75°F mean temp., aged R-value <sup>(2)</sup> (90 days @ 140°F), ft <sup>2</sup> •h•°F/Btu	
At 1"	6.5
At 4"	25
Water Vapor Permeability, ASTM E96, perm-inch	2.7
Water Absorption, ASTM D2842, 5% max. volume	Pass
Dimensional Stability, ASTM D2126, max. % linear change	
At -40°F, ambient R.H., 7 days	0.2
At 158°F, ambient R.H., 7 days	0.1
At 158°F, 97% R.H., 7 days	Pass <sup>(3)</sup>
Surface Burning Characteristics; <sup>(4)</sup> ASTM E84	Class A
Flammability, NFPA 286 <sup>(4)</sup>	
Maximum foam thickness	
Rim joists	8", no thermal barrier required
Wall	12", with code-approved thermal barrier
Ceiling	12", with code-approved thermal barrier
Flammability, AC377 Appendix X (modified NFPA 286) <sup>(5)</sup>	
Maximum foam thickness uncovered	
Uninhabitable attics	10"
Crawl spaces	10"

(1) Not to be considered sales specifications.

(2) R means resistance to heat flow. The higher the R-value, the greater the insulating power.

(3) Pass AC377.

(4) Flammability values for this or any other material are not intended to represent hazards that may be present under actual fire conditions.

(5) Attic and crawl space use limitations apply. See ICC ESR-3568 or contact Dow at 1-866-583-BLUE (2583) for more information.

## In the U.S.

### The Dow Chemical Company

### Dow Building Solutions

200 Larkin Center, 1605 Joseph Drive

Midland, MI 48674

## Sales and Technical Information

1-866-583-BLUE (2583)

[dowbuildingsolutions.com](http://dowbuildingsolutions.com)

[sprayfoamatdow.com](http://sprayfoamatdow.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 (MSDS), 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. 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 <http://www.epa.gov/iaq/homes/hip-ventilation.html>.

**FROTH-PAK™ ULTRA Premium Foam Insulation** contains isocyanate, hydrofluorocarbon blowing agent and polyol. Read all the instructions and (M)SDS carefully before use. Cover all skin. Wear protective clothing (including long sleeves), gloves, goggles or safety glasses, and proper full-faced 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 full-faced respiratory protection. Increased ventilation significantly reduces the potential for isocyanate exposure; however, supplied air or an approved full-faced 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, full-faced air-supplying respirator (air line or self-contained breathing apparatus). Spraying large amounts of foam indoors may require the use of a positive pressure, full-faced 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.

Because use conditions and applicable laws may differ from one location to another and may change with time, check local building codes, applicable laws and other government enactments for compliance details prior to use.

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