



AN AIRTIGHT CASE FOR
GREAT STUFF PRO™ WINDOW & DOOR
INSULATING FOAM SEALANT



Air infiltration is a big waste of energy. And with heating and cooling costs skyrocketing, it can be a big drain on a homeowner's heating and cooling budget. Installing energy-efficient windows and doors can greatly reduce this infiltration, but another area is often overlooked – around the window and door frames. Uninsulated or under-insulated framework can contribute to the home's total energy loss and customer dissatisfaction.

CLOSE THE GAP

Stop the loss by closing the gap between framework and rough openings with GREAT STUFF PRO™ Window & Door Insulating Foam Sealant.

The low pressure-build formulation of GREAT STUFF PRO™ Window & Door Insulating Foam Sealant differentiates it from other polyurethane foams. Closing the gap with GREAT STUFF PRO™ Window & Door not only helps to reduce energy costs, it also helps:

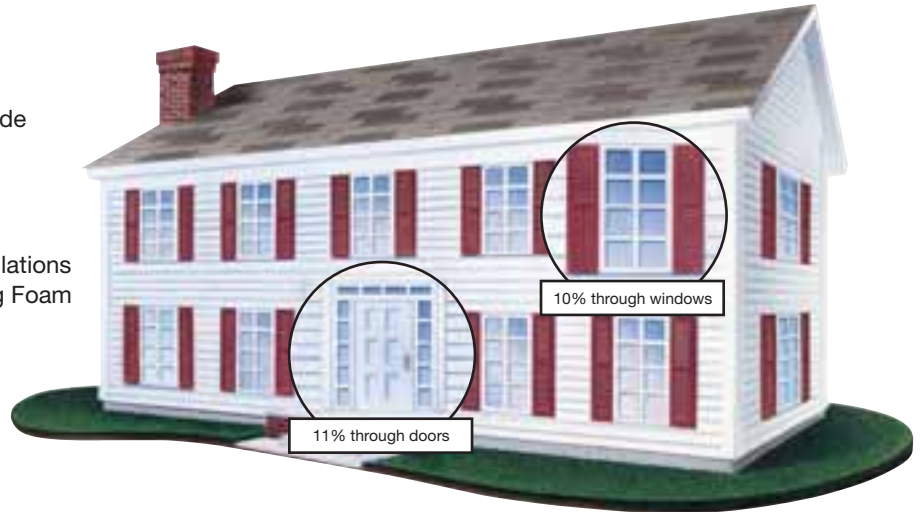
- Enhance comfort
- Seal openings/gaps and reduce air leakage
- Equalize pressure in the rough opening to the outside conditions
- Keep pests out
- Minimize intrusion of dust and exterior allergens

Increase the quality of your window and door installations with GREAT STUFF PRO™ Window & Door Insulating Foam Sealant.

THE PROFESSIONAL CHOICE

With GREAT STUFF PRO™ Window & Door Insulating Foam Sealant, you can achieve a better window or door installation. GREAT STUFF PRO™ Window & Door helps to prevent drafts, repels water and more, resulting in a higher-quality installation, improved home comfort and greater customer satisfaction.

- Low pressure-build formulation at 0.08 psi (.55 kPa) (gun foam) per AAMA 812-04
- Proven not to distort or bow window or door frame, when applied properly
- Remains pliable after installation
- Helps to maximize energy efficiency



ENERGY LOSS THROUGH WINDOWS AND DOORS

Sealing window and door frames with GREAT STUFF PRO™ Window & Door will help reduce the 21% of a home's total heat loss from air infiltration – increasing the comfort and energy efficiency for years to come.*



Unlike fiberglass insulation, GREAT STUFF PRO™ Window & Door resists water intrusion and compresses easily as the frame expands and contracts, while still maintaining an adhesive bond.

Compressing fiberglass insulation causes it to lose insulating value. Stuffing fiberglass insulation into the narrow, hard-to-fill gaps surrounding a window or door frame leads to limited insulation value and a poor air seal.

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*Source: www1.eere.energy.gov/consumer/tips/air_leaks.html

EASY APPLICATION

GREAT STUFF PRO™ Window & Door is available in 20 oz (567 g) and 24.5 oz (695 g) reusable gun- and straw-applied versions for quick, easy and accurate application. Dow provides applicator guns with a variety of features, including:

- Barbed or smooth dispenser gun tips allow attachment of straw for hard-to-reach areas
- Replaceable gun tips
- Flow control knob for adjustment of bead size
- No post-dispensing foam drip (reduces waste)
- PRO 14 and PRO 15 guns are stainless steel with nonstick internal parts that help prolong the life of the gun

GREAT ON BENEFITS

For a better fenestration installation, rely on GREAT STUFF PRO™ Window & Door Insulating Foam Sealant.

- Air seals the gap between a window or door frame and its rough opening
- Proven not to bend or bow framework, when applied properly
- Bonds to vinyl, metal, wood and composite surfaces
- Repels and deflects water
- Quick cure time
- Cost-effective, filling the rough opening of 6-9 average-sized windows per 20 oz (567 g) can (11-14 for 24.5 oz [695 g] can) under ideal conditions
- Meets ASTM E2112 standards



TO SIMPLIFY
CLEANUP, USE
GREAT STUFF
PRO™ GUN
CLEANER.



IT PAYS TO COMPARISON SHOP	
FIBERGLASS INSULATION	GREAT STUFF PRO™ WINDOW & DOOR
“Stuffed” into gap where it can settle and absorb moisture	Precisely sprayed into gap, creating bond to seal out air and reduce water intrusion
Does not expand	Expands to fill gap without distorting frame
Holds moisture	Repels/deflects water
Time-consuming to install	Installs in minutes
Insulative value diminishes if insulation settles or becomes wet	Provides effective insulative value and provides an air barrier
Conforms to ASTM standards	Conforms to ASTM and AAMA standards



PROVEN PERFORMANCE

GREAT STUFF PRO™ Window & Door Insulating Foam Sealant passes the moisture test, outperforming latex.

<p>1</p>	<p>2</p>	<p>3</p>	<p>4</p>
<p>The fully cured foam samples were inserted halfway into a beaker filled with purple dyed water.</p>	<p>Samples remained submerged for 24 hours.</p>	<p>Samples were removed and allowed to dry for seven additional days in a vertical position.</p>	<p>Samples were cut along a vertical cross section to assess the amount of absorption, wicking, moisture retention and foam shrinkage.</p>

LATEX VS. POLYURETHANE FOAM

MOISTURE ABSORPTION EXPERIMENT**

Aerosol foam was applied into separate 1-1/2" x 12" (38 mm x 305 mm) aluminum channels ... one filled with latex foam (white) and the other with GREAT STUFF PRO™ Window & Door polyurethane Insulating Foam Sealant (yellow). The foam samples were then allowed to cure for seven days.

The GREAT STUFF PRO™ Window & Door yellow sample exhibited no signs of water absorption or foam disintegration. Although the exterior was clearly stained by the dye, the interior remained unaffected. No sponging or wicking was observed. GREAT STUFF PRO™ Window & Door continued to hold its original shape and remained fully bonded to the aluminum channel. The cross cut section clearly demonstrates the water resistance of GREAT STUFF PRO™ Window & Door foam. (See 4 above.)

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** Internal test conducted by Dow

INDUSTRY RECOGNITION, TEST METHODS AND RESULTS

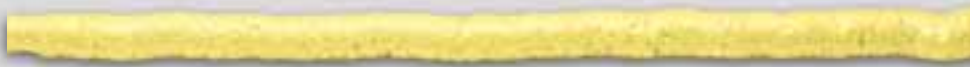
ASTM E2112 (Annex A)	Standard Practice for Installation of Exterior Windows, Doors and Skylights. [Conforms]
AAMA 812-04 (American Architectural Manufacturers Association)	Evaluated in accordance with the requirements in ASTM E2112 (Annex A), using Standard Practice for Assessment of Single Component Aerosol Expanding Foams for Sealing Rough Openings of Fenestration Installations. [Conforms to standard at 0.08 psi pressure-build (gun foam)]
ATI (Architectural Testing Inc.) (Air leakage and water penetration testing)	Evaluated in accordance with: <ul style="list-style-type: none"> • ASTM E283 Rate of Air Leakage Test [Air leakage <0.01 cfm/ft² at 6.24 psf pressure (or 50 mph wind speed) in 1 cm-wide gap] • ASTM E331 (gap testing) Water Penetration Test of Exterior Windows [No water leakage at 12 psf pressure] • ASTM E547 Cyclic Method for Water Penetration Testing of Windows at High and Low Air and High Water Test Pressure [No water leakage at 12 psf pressure]
ORNL (Oak Ridge National Laboratory)	ORNL/TM-2003/286. Document: Retrofit Best Practices Guide: <i>How to Save Energy When You Fix Up the Outside of Your Not-So-New House.</i> http://www.ornl.gov/sci/roofs+walls/facts/retrofitbestpractices/homeownerguide15b1.pdf (page 7)
	The U.S. Patent and Trademark Office awarded Patent Number 6,894,083 to Dow's exclusive formulation of a one-component, low pressure-build polyurethane foam.

FIBERGLASS VS. POLYURETHANE FOAM

Compared to fiberglass insulation, GREAT STUFF PRO™ Window & Door provides more efficient, long-term air sealing.

Stuffed into gaps, compressed fiberglass insulation loses its insulating value. It is also susceptible to moisture that penetrates gaps in the form of water vapor or liquid water from rain, snow and condensation. Over time, that moisture can lead to mold growth.

In contrast, GREAT STUFF PRO™ Window & Door Insulating Foam Sealant fills gaps with a water-resistant seal. It expands to take the shape of cracks and voids, forming a long-lasting, airtight and water-resistant bond to vinyl, wood, composite and metal surfaces. Once cured, it remains soft and flexible, permitting natural expansion and contraction of surrounding surfaces.



The lemon yellow color of GREAT STUFF PRO™ Window & Door Insulating Foam Sealant distinguishes it within Dow's product line as a low pressure-build, weather-tight fenestration solution.



Fiberglass, when wet and compressed, loses a significant portion of its insulative value and over time could serve as a catalyst for mold, mildew and other unwanted bacteria.

LEAVE IT TO THE PRO

Improving a home's energy efficiency is one of the top upgrades chosen by homeowners. For over 60 years, Dow has been a recognized and trusted leading manufacturer of building envelope solutions that contribute to the reduction of a home's energy loss, including:

- STYROFOAM™ Brand Extruded Polystyrene Foam Insulation
- Dow polyisocyanurate insulation
- STYROFOAM™ Spray Polyurethane Foam (SPF) Insulation
- WEATHERMATE™ and WEATHERMATE™ Plus housewraps
- WEATHERMATE™ Sill Pan
- WEATHERMATE™ Straight Flashing and WEATHERMATE™ Flexible Flashing
- FROTH-PAK™ Foam Insulation Kits and FROTH-PAK™ Foam Sealant Kits
- GREAT STUFF PRO™ Gaps & Cracks Insulating Foam Sealant
- GREAT STUFF PRO™ Wall & Floor Adhesive

Homeowners and professionals alike prefer these quality products from Dow, which are backed by extensive global resources, brand recognition, and technical and sales support. For a tight home, use durable, high-performance products from Dow.

CLOSE THE GAP ON ENERGY LOSS.

Call your Dow representative for more details.

NOTICE: No freedom from any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other government enactments. The product shown in this literature may not be available for sale and/or available in all geographies where Dow is represented. The claims made may not have been approved for use in all countries or regions. Dow assumes no obligation or liability for the information in this document. References to "Dow" or the "Company" mean The Dow Chemical Company and its consolidated subsidiaries unless otherwise expressly noted. NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.

NOTICE: Changes to the International Residential Code require the installation of a water-resistive barrier (WRB) within most exterior wall assemblies in residential construction. The following Dow insulated sheathing products qualify as a WRB when installed according to the installation instructions developed for "installation of foam sheathing as a weather-resistive barrier": STYROFOAM™ DURAMATE™ Plus, STYROFOAM™ Residential Sheathing, STYROFOAM™ Tongue and Groove, STYROFOAM SIS™, STYROFOAM™ Square Edge, STYROFOAM™ Residing Board, DOW™ High Performance Underlayment, THERMAX™ Sheathing, TUFF-R™ and Super TUFF-R™ and therefore do not require the use of a building paper or a housewrap as a WRB. When a WRB is not needed, these Dow foam sheathings may be installed according to standard installation instructions for foam sheathing from Dow. Be sure products and installation instructions meet code requirements for your particular location. Note: WEATHERMATE™ and WEATHERMATE™ Plus Housewraps have already qualified as water-resistive alternatives to the prescribed felt (see Evaluation Reports NER-593 and NER-640 for approved alternative).

STYROFOAM™ Brand Extruded Polystyrene Foam Insulation

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 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. or 1-519-339-3711 in Canada.

Dow Polyurethane Foam Insulation and Sealants

CAUTION: 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 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. or 1-519-339-3711 in Canada.

GREAT STUFF™ products contain isocyanate and a flammable blowing agent. Read the label and Material Safety Data Sheet carefully before use. Eliminate all sources of ignition before use. Wear long sleeves, gloves, and safety glasses or goggles. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure.

GREAT STUFF PRO™ Gun Cleaner is flammable and contains acetone and propane. Read the label and Material Safety Data Sheet carefully before use. Eliminate all sources of ignition before use. Wear long sleeves, gloves, and goggles or safety glasses. Provide adequate ventilation or wear proper respiratory protection. Contents under pressure.

FROTH-PAK™ Polyurethane Spray 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. Supplied air or an approved air-purifying respirator equipped with an organic vapor sorbent and a P100 particulate filter may be required to maintain exposure levels below ACGIH, OSHA, WEEL or other applicable limits. Provide adequate ventilation. Contents under pressure.

WEATHERMATE housewraps are a secondary defense against bulk water intrusion. The exterior finish is the primary water barrier.

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.

www.insulateyourhome.com

FOR TECHNICAL INFORMATION: 1-866-583-BLUE (2583)

FOR SALES INFORMATION: 1-800-232-2436

THE DOW CHEMICAL COMPANY

Dow Building Solutions • 200 Larkin • Midland, MI 48674

FOR TECHNICAL INFORMATION: 1-866-583-BLUE (2583) (English) • 1-800-363-6210 (French)

FOR SALES INFORMATION: 1-800-232-2436 (English) • 1-800-565-1255 (French)

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Printed in U.S.A.

Form No. 179-07344-0610MCK
178-00380-0610MCK

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