GREAT STUFF PRO™ Window & Door Insulating Foam Sealant

1. PRODUCT NAME
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant

2. MANUFACTURER
The Dow Chemical Company
Dow Building Solutions
200 Larkin Midland, MI 48674
1-866-583-BLUE (2583)
Fax 1-989-832-1465
www.dowbuildingsolutions.com

3. PRODUCT DESCRIPTION
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant is a one component, expanding, low pressure-build,* flexible polyurethane foam exclusively formulated to air seal the gap around a window or door frame and the rough opening. The foam expands to generate an effective seal, and when applied properly is proven not to distort or bow window and door frames.

Basic Use
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant is designed to form a durable, airtight, water-resistant bond to vinyl, wood and metal surfaces. Its foam skin repels and deflects water, which can help reduce the potential for moisture damage in frame openings.

GREAT STUFF PRO™ Window & Door:
• Expands to take the shape of cracks and gaps, helping stop drafts
• Reduces pathways where insects can enter
• **Is tack free 3-10 min., trims within 60 minutes, fully cured in 8 hours

Size
See Table 1 for size and estimated yields.

Accessories
Using one of several PRO Series foam dispensing guns enables pinpoint application control and no drip dispensing.

An air tight and moisture-tight seal between the dispensing gun and the can prevents the foam from curing and blocking the dispensing valve, allowing the can to be reused. GREAT STUFF PRO™ Gun Cleaner simplifies cleanup of uncured polyurethane foam from dispensing guns.

4. TECHNICAL DATA
Applicable Standards
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant conforms to ASTM E2112 – Standard Practice for Installation of Exterior Windows, Doors and Skylights. It has also been tested to the following standards using a 1 cm wide gap assembly:
• UL723 (ASTM E84) – Standard Test Method for Surface Burning Characteristics of Building Materials
• ASTM E283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across the Specimen
• ASTM E331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors and Curtain Walls by Uniform Static Air Pressure Difference
• ASTM C1620 – Standard Specification for Aerosol Polyurethane and Aerosol Latex Foam Sealants

ASTM E2178 (modified per CAN/ULC – S710 testing requirements) Standard Test Method for Air Permeance of Building Materials

For more information on standards/test approvals and classifications, see Table 2.

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

Physical Properties
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant exhibits the typical physical properties indicated in Table 3 when tested as represented.

5. INSTALLATION
GREAT STUFF PRO™ Window & Door should be applied at temperatures between 40°F and 100°F (4°C and 38°C) at relative humidity > 20 percent. Surface where applied should be free of dust, grease, oil, wax and release agents. Damp surfaces will not impair the bond.

<table>
<thead>
<tr>
<th>Can Size, oz</th>
<th>Delivery</th>
<th>No. of Windows(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>Gun</td>
<td>16 – 18</td>
</tr>
</tbody>
</table>

(1) Estimated yield under ideal conditions for 36” x 60” window, 3/8” wide gap, 1” deep, 3/8” bead

TABLE 2: GREAT STUFF PRO™ Window & Door Insulating Foam Sealing Approvals/Classifications

<table>
<thead>
<tr>
<th>Standard</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAMA 812-04</td>
<td>Conforms to standard at 0.13 psi; 0.90 kPa (average) pressure-build (gun-applied foam)</td>
</tr>
<tr>
<td>UL Classified</td>
<td>Classified per UL 723 as under UL File R13655</td>
</tr>
<tr>
<td>ICC-ES ESR-1961</td>
<td>Evaluated as an insulating sealant</td>
</tr>
</tbody>
</table>

1 Patent pending
*Per AAMA 812-04; refers to pressure development while foam cures.
**To ± 5 ºF and 50 ± 5 % R/H, 1 inch bead diameter, 6 inch length. Cure rate is dependent on temperature, humidity and size of foam bead.
SAFETY AND CONDITIONS OF USE
• Read the label and (Material) Safety Data Sheet (MSDS) carefully before use.
• GREAT STUFF PRO™ Insulating Foam Sealants contain isocyanate and a flammable blowing agent. Vapor may travel to other rooms. Ensure adequate ventilation. Shut off all pilot lights and extinguish open flames; eliminate all sources of ignition before use. Do not smoke or use lighters or matches while dispensing foam.
• Do not breathe vapor or mist. Use in well-ventilated areas or wear proper respiratory protection. Isocyanate is irritating to the eyes, skin and respiratory system, and may cause sensitization by inhalation or skin contact.
• GREAT STUFF PRO™ Insulating Foam is very sticky and will adhere to most surfaces and skin. Do not get foam on skin. Wear 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. The can may burst if left in areas susceptible to high temperatures, such as motor vehicles, or near radiators, stoves or other sources of heat. Do not place can in water. Do not puncture, incinerate or store at temperatures above 120°F (49°C).
• Cured GREAT STUFF PRO™ Insulating Foam is 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). GREAT STUFF PRO™ Insulating Foam 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.


6. AVAILABILITY
GREAT STUFF PRO™ Window & Door Insulating Foam Sealant is distributed through an extensive network. For more information, call: 1-800-232-2436

7. WARRANTY
NOT APPLICABLE.

8. MAINTENANCE
GREAT STUFF PRO™ Window & Door has a shelf life of 18 months when stored at 75°F (24°C).

9. TECHNICAL SERVICES
Dow can provide technical information to help address questions when using GREAT STUFF PRO™ Window & Door Insulating Foam Sealant. For technical assistance, call: 1-866-S83-BLUE (2583)

10. FILING SYSTEMS
www.dowbuildingsolutions.com

TABLE 3: Physical Properties(1) of GREAT STUFF PRO™ Window & Door Insulating Foam Sealant

<table>
<thead>
<tr>
<th>Property and Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive Strength, ASTM D1621, Parallel to rise, psi (kPa)</td>
<td>3.0 (20.68)</td>
</tr>
<tr>
<td>Apparent Density, ASTM D1622,pcf (kg/m³)</td>
<td>1.29 (20.66)</td>
</tr>
<tr>
<td>Dimensional Stability, ASTM D2126, % Volume Change at 2 weeks</td>
<td>-3.346</td>
</tr>
<tr>
<td>70 °C/100 %RH</td>
<td>3.131</td>
</tr>
<tr>
<td>70 °C/Ambient %RH</td>
<td>2.951</td>
</tr>
<tr>
<td>-40°C/Ambient %RH</td>
<td>&lt;75%</td>
</tr>
<tr>
<td>Open Cell Content, ASTM D6226, %</td>
<td></td>
</tr>
<tr>
<td>Tensile Strength, ASTM D1623, Parallel to rise, psi (kPa)</td>
<td>9.5 psi = 65.6 kPa (Type B)</td>
</tr>
<tr>
<td></td>
<td>5.5 psi = 37.9 kPa (Type C)</td>
</tr>
<tr>
<td>Elongation, %, ASTM D1623</td>
<td>18.9% (Type B)</td>
</tr>
<tr>
<td></td>
<td>16.7% (Type C)</td>
</tr>
<tr>
<td>Shear Strength, ASTM C273 psi (kPa)</td>
<td>7.3 (50.1 kPa)</td>
</tr>
<tr>
<td>Flame Spread/Smoke Developed(2), UL723 (ASTM E84) (3)</td>
<td>10/20</td>
</tr>
</tbody>
</table>

(1) Not to be considered sales specifications
(2) This numerical flame spread rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.
(3) Tested as applied in three – 1/4 inch (19 mm) diameter beads 5 inches (127 mm) on center covering 12.5% of the exposed test sample area.