



# ENERTITE® G Open-cell Spray Foam

## BUILDING ENVELOPE INSULATION MATERIAL

### ULC ER41037 - 05

#### DESCRIPTION:

ENERTITE G is a two-component low-density open-cell spray polyurethane foam (ocSPF) insulation material. This ocSPF is created by the chemical reaction between an isocyanate and resin. ENERTITE G can only be processed with BASF Elastospray 8000A Isocyanate. When this material is combined in the spray gun's mixing chamber, a chemical reaction occurs, generating heat. ENERTITE G is a water-blown formulation with one reactivity grade and is compatible with most common construction materials. The final cured ENERTITE foam product is yellow/off white.

#### USES:

Intended for residential, commercial, industrial and institutional building applications where insulation is required, ENERTITE G can be installed in new or retrofit constructions. In either case, the product must be installed in open cavities in the following locations in a wood-frame construction that meets the requirements of the NBC:

- interior of exterior walls including perimeter joists
- cathedral ceilings and attics
- floors separating living spaces from a garage
- partition wall separation of units
- cantilever overhang floors

#### FOAM SYSTEM PHYSICAL PROPERTIES\*

The following test data are from an independent laboratory and are compliant with material standard CAN/ULC S712.1

Finished ENERTITE G Physical Properties	Results		Test methods
Density (Core)	8.9 Kg/m <sup>3</sup>	0.56 lb/ft <sup>3</sup>	ASTM D1622
Open cell content	98%		
Air permeance at 75 Pa at 100mm thickness	Positive Pressure 0.037 L/(m <sup>2</sup> .s)		ASTM D2842
Water Vapour Permeance (50 mm thick sample)	882 ng/Pa.s.m <sup>2</sup>		ASTM E96
Dimensional Stability, % volume change at 28 days - 20 °C ± 3 °C + 80 °C ± 2 °C At 70 ± 2 °C, 97 ± 3% RH	+ 0.1 -3.7 - 12.9		ASTM D2126-20
Flame Spread Classification** FS (S102) FS (S127)	Pass		CAN/ULC-S102 CAN/ULC-S127
Time to Occupancy***	1 Day		CAN/ULC-S774
Fungi Resistance	No growth		ASTM C1338
Thermal Resistance at 50mm thickness (30 days)	1.23 m <sup>2</sup> .K/W (R3.55/inch °F.ft <sup>2</sup> .h/BTU) unit		ASTM C-518

\*These physical property values are typical for this material as applied at our development facility under controlled conditions. ENERTITE G performance and actual physical properties will vary with differences in application (i.e. ambient conditions, process equipment and settings, material throughput, etc.). As a result, these published properties should be used as guidelines solely for the purpose of evaluation. Physical property specifications should be determined from actual production material.

\*\*Numerical flame spread ratings are not intended to reflect hazards presented by this or any products made from this material under actual fire conditions. ENERTITE G should not be left exposed and must be protected by a thermal barrier.

\*\*\*The volatile organic compound (VOC) emissions under consideration were measured with an assumed room ventilation rate of 0.3 air changes per hour as per the NBC requirements for new construction.

#### ENERTITE® G RESIN and ISO COMPONENT STORAGE AND PROPERTIES

	ENERTITE G Resin	ELASTOSPRAY 8000A Isocyanate
Color	Beige	Brown
Shelf Life	6 months	12 months
Storage Temperature Recommendations	10°C-27°C (50°F - 80°F)	10°C-27°C (50°F - 80°F)
Drum Mass	208 kg (460 lbs.)	227 kg (500 lbs.)
Viscosity – mPa·s @ 25°C (77 °F)	275 ± 75	200 ± 30
Specific Gravity @ 25°C (77°F)	1.12	1.22
Ratio (Parts by Volume)	100	100

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**APPROVALS AND CREDENTIALS**

- ULC ER41037-05 – Spray-Applied Open-Cell Polyurethane Foam Thermal Insulation
- CAN/ULC S712.1 – ENERTITE G is tested to Standard for thermal Insulation – Light density, open cells spray applied semi-rigid Polyurethane foam
- GREENGUARD and GREENGUARD Gold Certification – ENERTITE G meets the stringent requirements of GREENGUARD Gold, thus ensuring occupant safety through improved indoor air quality.
- CAN/ULC S101 Fire Rated Assemblies listed through UL

**PREPARATION & APPLICATION DETAILS:**

ENERTITE G must be installed by applicators that are licensed through BASF Canada’s Quality Assurance and Training Program (QATP) – RAISING PERFORMANCE TO NEW HEIGHTS® and certified through Caliber Solutions Inc. who is responsible for delivering the Quality Assurance Program (QAP). ENERTITE G is sold to licensed contractors in drums or totes.

ENERTITE G is designed for an application rate of ½ inch minimum to 8 inches maximum per pass. Proper cooling or dwell time will allow for optimal results between passes (5 minutes per max pass applied). Once installed and material has cooled, it is possible to add additional applications in order to increase the overall installed thickness of SPF.

**ENERTITE G** resin requires the following preparation for proper processing:

- Recommended material temperature (in the drum) at the time of application should be approximately 21°C – 26.6°C (70°F-80°F).
- Heating and recirculation are not required if the material is 21°C (70°F) or higher.
- If drums temperatures are below 21°C (70°F), recirculation or drum heaters should be used to bring the material to a minimum 21°C (70°F) prior to spraying.
- Before applying, ensure ambient temperature is between -7°C to + 49°C (20°F to 120°F).

Refer to the **ENERTITE G Open-cell Spray Polyurethane Foam Application Guide** for more detailed preparation and application guidelines.

**DO NOT MIX ENERTITE G WITH ANY OTHER PRODUCTS**

**EQUIPMENT PROCESSING PARAMETERS:**

Conditions	Side A, Side B, Hose Temperature (Adjust in ± 3°F increments)	Proportioner set Pressure <i>(Spray pressure)</i>
Cold	125 – 135 °F	1150 – 1450 psi <i>(900 – 1200 psi)</i>
Warmer	105 – 125 °F	1150 – 1450 psi <i>(900 – 1200 psi)</i>

**HEALTH, SAFETY AND TOXICITY CONSIDERATIONS – HANDLING RECOMMENDATIONS**

<p><b>ENERTITE G Resin</b></p> <ul style="list-style-type: none"> <li>• Use personal protective equipment (see SDS)</li> <li>• Before opening, unscrew the bung slowly to release the pressure in the drums</li> <li>• Avoid all contact with skin</li> </ul>	<p><b>ELASTOSPRAY 8000A Isocyanate</b></p> <ul style="list-style-type: none"> <li>• Use personal protective equipment (see SDS)</li> <li>• Avoid all contact with skin and eyes and Do not inhale the vapours</li> <li>• Do not store in a humid environment</li> <li>• In case of spills, absorb using sand or absorbing material (not sawdust)</li> <li>• For larger spills, contact BASF Canada at 1-800-454-2673, or any agency specialized in chemical damage control (e.g., CANUTEC at 613-996-6666)</li> </ul>
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### **INSTALLATION SAFETY**

At all times while spraying, properly fitting breathing apparatus supplying fresh air must be worn by the installers and others working within 10 meters (33 feet) of the installer. Protective gloves, overalls, eye protection, safety shoes and hard hats must also be worn while spraying. While spraying, always provide mechanical ventilation with a minimum of 0.3 air changes per hour and continuing for 24 hours following installation. People with known respiratory allergies must avoid exposure to the isocyanate component. If inhalation of vapours occurs, remove the person from the working area to breathe fresh air and if breathing is still difficult call a physician. Avoid contact with eyes, skin and clothing. In case of eye contact, immediately flush with large amount of water for at least 15 minutes and call a physician immediately. In case of skin contact, wash area with soap and water. Wash soiled clothing before reusing.

### **FIRE HAZARD**

Fires involving either component may be extinguished with carbon dioxide, dry chemical, or an inert gas. Personnel fighting the fire must be equipped with self-contained breathing apparatus.

### **PRECAUTIONS/LIMITATIONS**

Do not install in locations where a non-combustible insulation is required. Keep minimum distances of 75 mm (3 in) from heat emitting devices. When installed inside a building protect foam in accordance with the building code requirements using a layer of drywall or a suitable thermal barrier.

### **PROCESSING ENERTITE G and BASF WALLTITE (or other SPF materials using the same machine):**

*(These two materials are distinct products with distinct application processes that MUST be stringently observed.)*

- **Use a separate drum pump or wipe down pump shaft before putting into ENERTITE G drum.**
- Going from the ENERTITE G to any BASF open or closed-cell material or vice versa only requires a few special steps. One material can be pushed through the lines with the other. The material can be either bled out or sprayed out off target.
- Every 50 ft of 3/8" hose contains approximately ½ gallon of material (¼ gallon resin and ¼ gallon isocyanate). For 300 ft of hose, approximately 3 gallons of material needs to be purged from the lines to get to fresh material.
- If material is bled out, please note that where one is pushing out, there will be some cross contamination of the two resins. The bled material can be re-used as long as cross contamination has not occurred. Please note that the same Isocyanate (A- side) material is used for both BASF closed and open cell SPF and therefore, the resin (B-side) is the only side that is required to be bled out.
- If material is sprayed out, purge the cross-over material out onto polyethylene plastic or cardboard until you get to the material you are intending on spraying. Once you have all the first material out of the system, you will need to do a quality check prior to spraying the foam into cavities.
- **CROSSOVER MATERIAL SPRAYED IN THE WALL CAVITY SHOULD BE REMOVED IMMEDIATELY BEFORE CONTINUING.** Dangerous exotherm could occur if the crossover material is sprayed too thick (> 2 inches in a single pass).
- If transitioning from ENERTITE G to another manufacturer's system, flushing is required. Both the ISO (A-side) and the resin (B-side) should be flushed out. Follow any flushing or processing guidelines required by that manufacturer.

### **LIMITED WARRANTY INFORMATION - PLEASE READ CAREFULLY:**

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are only intended for sale to industrial and commercial customers. Customer assumes full responsibility for quality control, testing and determination of suitability of products for its intended application or use. We warrant that our products will meet our written liquid component specifications. We make no other warranty of any kind, either express or implied, by fact or law, including any warranty of merchantability or fitness for a particular purpose. Our total liability and customers' exclusive remedy for all proven claims is replacement of nonconforming product and in no event shall we be liable for any other damages.

**TECHNICAL ASSISTANCE: Toll-Free: 1-866-474-3538 - <https://sprayfoam.basf.com/ca/en/resources/downloads>**

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