



GUARDFOAM® 55CN

CLOSED CELL SPRAY INSULATION

PRODUCT DESIGN

GuardFoam® 55CN closed-cell spray applied foam was developed using Environment Canada's approved next generation blowing agent. When installed, following application guidelines, GuardFoam 55CN adheres to framing members and substrates. The foam is tinted orange to signify our GuardFoam 55CN Canada product line. GuardFoam 55CN closed-cell spray foam provides superior energy economy and durability while significantly reducing unmanaged moisture and air infiltration.

PRODUCT USE

As a component of a "systems approach" to proper building envelope construction, GuardFoam 55CN closed-cell spray foam provides exceptional performance in deducting heat transfer, moisture gain and improving racking strength.

RECOMMENDED PRODUCT APPLICATIONS*

- Walls
- Floors
- Unvented Crawl Spaces
- Concrete Slab
- Cold Storage
- Unvented Attics
- Vented Attics
- Vented Crawl Spaces
- Ducts
- Freezers
- Ceilings
- Piping
- Foundations
- Tanks
- Coolers

*Spaces must be ventilated while spraying is being performed. Always consult local building code officials to ensure intended applications meet codes and regulations. Attic roof deck applications and/or sealed attic applications may affect shingle warranties. Check the manufacturers warranty.

RECOMMENDED PROCESSING PARAMETERS

Processing Designation:	Regular
Winter:	-6° C - 10° C (20° F - 50° F)
Regular:	10° C - 27° C (50° F - 80° F)
Summer:	27° C (80° F - and above)

Optimum hose pressure and temperature may vary as a function of the type of equipment, ambient and substrate conditions, and the specific application. It is the responsibility of the applicator to properly interpret equipment technical literature, particularly information that relates acceptable combinations of gun chamber size, proportioner output, and material pressures.

Processing Designation	GuardFoam 55CN Closed-Cell
Equipment Dynamic Pressure	1,000 - 1,400 psi
Preheat Temperature	52° C - 57° C (125° F - 135° F)
Hose Heat Temperature	52° C - 57° C (125° F - 135° F)
Drum Temperature Storage	18° C - 30° C (65° - 85° F)

Material shelf life: 12 months when stored within recommended temperature range. 2:1 transfer pumps are recommended for material transfer from container to the proportioner.

CAUTION: Extreme care must be taken when removing and reinstalling drum transfer pumps so as NOT to reverse the "A" and "B" components. Do not configure equipment to recirculate GuardFoam 55CN closed-cell from proportioner back into drum. Do not recirculate or mix other suppliers' "A" or "B" component into GuardFoam 55CN containers.

PHYSICAL PROPERTIES

Properties	Test Method/ Requirements	Canadian Value per Can/ULC S705.1
LTTR	CAN/ULC S770	1.8 @ 50 mm (R 10.2)
Compressive Strength	ASTM D 1621	185 kPa
Core Density	ASTM D 1622	41.5 kg/m ³
Air Permeance	ASTM E 283-04	<0.02L/s/M2 at 50 mm
Closed Cell Content	ASTM D 2856	6.97
Tensile Strength	ASTM D 1623	355 kPa
Water Vapor Permeance	ASTM E 96	40 ng/(Pa·s·m ²) 50 mm
Dimensional Stability:	ASTM D 2126	-20° C ambient +0.45 80° C ambient -0.8 70° C ambient -13.5 @ 97 +/- 3% RH
Water Absorption	ASTM D-2842	2.9%
VOC:	CAN/ULC-S774	Time before Occupancy is 1 day*

* For retrofit applications, the working area should be ventilated at a rate of .3 air changes per hour. Based on an independent toxicological assessment, the specified ventilation must be in effect for at least one (1) day before occupancy is permitted in the newly insulated suite.

CREDENTIALS/CERTIFICATIONS**

- ICC ESR-2629
- CAN/ULC S705.1
- CCMC 13414-L

GuardFoam 55CN closed cell possesses the flammability characteristics shown:

Properties	Test Method/ Requirements	Canadian Value per Can/ULC S705.1
Flame Spread	CAN/ULC 5127	240
Smoke Development	CAN/ULC 5102	470

** Manufactured by Lapolla Industries, Inc./Lapolla Canada (FL 2000)

THIS FOAM MUST NOT BE APPLIED IN EXCESS OF 50 MM PER APPLICATION. THE FOAM SHOULD BE ALLOWED TO COOL FOR 20 TO 30 MINUTES OR UNTIL THE SURFACE TEMPERATURE HAS RETURNED TO AMBIENT BEFORE ADDITIONAL APPLICATIONS OF FOAM ARE ATTEMPTED. FOAM APPLIED IN EXCESS OF 50 MM (2.0 INCHES) OR WITHOUT ALLOWING FOR COOLING MAY RESULT IN, BUT IS NOT LIMITED TO, EXCESS HEAT BUILD-UP AND RESULT IN FIRE OR THE GENERATION OF OFFENSIVE ODORS THAT MAY NOT DISSIPATE WITH TIME.

THERMAL BARRIER

GuardFoil 55CN closed-cell must be installed in accordance with the National Building Code of Canada and CAN/ULC-S705.2. The National, Provincial and Local building codes (as well as IRC and IBC codes) require that SPF be separated from the interior of a building by an approved fifteen (15) minute thermal barrier, such as 1/2" gypsum wall board or equivalent, installed per manufacturer's instructions and corresponding code requirements. There are exceptions to the thermal barrier requirement: (1) Code authorities may approve coverings based on fire tests specific to the SPF application. For example, covering systems that successfully pass large scale tests may be approved by code authorities in lieu of a thermal barrier; (2) SPF protected by 1" thick masonry does not need a thermal barrier. Applicators should ensure the safety of the jobsite and construction personnel by posting appropriate signs warning that all "hot work" such as welding, soldering, and cutting with torches should take place no less than 35 feet from any exposed foam. If "hot work" must be performed all spray polyurethane foam should be covered with an appropriate fire or welder's blanket, and a fire watch should be provided.

HANDLING AND SAFETY

Respiratory protection is **MANDATORY** for everyone in the spray area! Visit www.polyurethane.org for Health and Safety information, including a model Respiratory Protection Program. Work zone and re-entry requirements are given on MSDS sheets or Guardian's "Important Safety Information" document available at www.guardianbp.com. Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups while the "B" component contains amine and/or catalysts with blowing agents. Both materials must be handled and used with adequate ventilation. Avoid breathing vapors. Wear a NIOSH approved respirator. If inhalation of vapors occur, remove victim from contaminated area and administer oxygen if breathing is difficult. Call a physician immediately. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact, immediately flush with large amounts of water for at least fifteen minutes. Consult a physician immediately. In case of skin contact, wash area with soap and water. Wash clothes before reuse.

Positive pressure ventilation of the work area is recommended to minimize the accumulation of vapors in the work area during the application. Improper application techniques of this foam system must be avoided. This includes excessive thickness, off ratio material, and spraying into rising foam. The potential results of improperly applied materials may include but is not limited to, excessive heat build-up and may result in a fire or offensive odors which may not dissipate with time and/or poor product performance due to improper density of the applied material. Large masses of sprayed materials should be avoided. When large masses are generated they should be removed from the area, cut into small pieces and allowed to cool before disposal. Failure to follow this recommendation may result in a fire. It is recommended that a fire extinguisher be located in any easily accessible portion of the work area.

IN CASE OF SPILLS OR LEAKS

Steps To Be Taken-

- Utilize appropriate personal protective equipment (PPE).
- Contain and cover spilled material with a loose, absorbent material such as oil-dry, vermiculite, sawdust or Fuller's earth.
- Shovel absorbent waste material into proper waste containers.
- Wash the contaminated areas thoroughly with hot, soapy water.
- Ventilate area to remove vapors.
- Report sizeable spills to proper environmental agencies.

IN CASE OF FIRE

Extinguishing Media-Dry chemical extinguishers such as mono ammonium phosphate, potassium sulfate, and potassium chloride. Additionally, carbon dioxide, high expansion (proteinic) chemical foam, or water spray for large fires.

DISCLAIMER

The data presented herein is not intended for use by nonprofessional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

The information herein is believed to be reliable, but unknown risks may be present. To the best of our knowledge, the technical data contained herein is true and accurate at the date of issuance and is to be used as a guide and is subject to change without prior notice. User must contact Guardian Building Products to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We assume no responsibility for coverage, performance or injuries resulting from use. See www.guardianbp.com for applicable product warranties. **NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY GUARDIAN BUILDING PRODUCTS, EXPRESS OR IMPLIED, STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING PATENT WARRANTIES OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**