

GUARDFOAM® 55

CLOSED CELL SPRAY INSULATION

PRODUCT DESIGN

GuardFoam® 55 CC is a closed-cell spray applied foam, which was developed using an EPA approved next generation blowing agent which when installed following application guidelines adheres tenaciously to framing members and substrates. GuardFoam 55 CC 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 55 CC 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:	20° - 50°F
Regular:	50° - 80° F
Summer:	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 CC
Equipment Dynamic Pressure	1,000 - 1,400 psi
Preheat Temperature	125° - 135° F (52° - 57° C)
Hose Heat Temperature	125° - 135° F (52° - 57° C)
Drum Temperature Storage	65° - 85° F (18° - 30° C)

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 55 CC from proportioner back into drum. Do not recirculate or mix other suppliers’ “A” or “B” component into GuardFoam 55 containers.

PHYSICAL PROPERTIES

Properties	Test Method/ Requirements	Value
Aged “R” Value	ASTM C 518	6.3 per inch
Compressive Strength	ASTM D 1621	25-30 psi
Core Density	ASTM D 1622	2.0-2.3 lbs./ft ³
Air Leakage	ASTM E 283-04	<0.02L/s/M2 at 2.0 inches
Closed Cell Content	ASTM D 2856	>90%
Tensile Strength	ASTM D 1623	40-48 psi
Water Vapor Transmission @ 74°F, perm inch	ASTM E 96 2.5 max	1.98 perms @ 1”
Dimensional Stability: 28 days at 160°F, 100%RH	ASTM D 2126 15% max by volume change	4%
Sound Transmission Co-Efficient	ASTM E 90-85/E413 Sound Transmission Loss in dB	38

CREDENTIALS/CERTIFICATIONS*

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

GuardFoam 55 CC is a Class I formulation, as Tested per ASTM E84, and possess the flammability characteristics shown:

ASTM Method E84	Class I	Class II	Class III
Flame Spread	≤25	≤75	Non Rated
Smoke Development	≤450	≤450	Non Rated

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

ROOM CORNER FIRE TESTING*

NFPA 286	
Location	SPF Thickness*
Wall Cavities	Up to 12" (305mm)
Ceiling Cavities	Up to 12" (305mm)
DIVERSIFIED	
Location	SPF Thickness*
Wall Cavities	Up to 7" (178mm)
Ceiling Cavities in Attics	Up to 15" (385mm)

*THESE VALUES REFER TO THE TOTAL THICKNESS OF THE PRODUCT TESTED, NOT THE MAXIMUM THICKNESS ALLOWED PER PASS OR APPLICATION.

THIS FOAM MUST NOT BE APPLIED IN EXCESS OF 2.0 INCHES 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 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

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. Certain materials that offer protection from ignition, called "ignition barriers," may not be considered as thermal barrier alternatives unless they comply with NFPA 286 or other full-scale burn tests. Applicators should request test data and code body approvals or other written indications of acceptability under the code to be sure that the product selected offers code-compliant protection. 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.

VAPOR RETARDER

GuardFoam 55 CC qualifies as a vapor retarder as defined by the International Code Council and ASHRAE (class II) at a minimum thickness of 2 inches. Building construction types with a persistent, high moisture drive require additional moisture remediation, as local building codes dictate. This is including climate zones 5 and higher in the U.S., as defined in 2004 Supplement to the IRC, Table N1101.2.

HANDLING AND SAFETY

Respiratory protection is **MANDATORY** for everyone in the spray area! Follow OSHA requirements for Respiratory Protection (29 CFR 1910.134). 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. The vapors must not exceed the TLV (0.02 parts per million) for isocyanates. 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.

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 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.**

