GUARDIAN BUILDING PRODUCTS

GUARDFOAM® 55

OPEN CELL SPRAY INSULATION

PRODUCT DESIGN

GuardFoam® 55 OC is an open-cell spray applied foam, which when installed following application guidelines adheres tenaciously to framing members and substrates. GuardFoam 55 OC open-cell provides superior energy economy and durability while significantly reducing unmanaged moisture and air infiltration.

PRODUCT USE

GuardFoam 55 OC forms a completely sealed air barrier in wall cavities and can be used to fill 2" x 6" stud wall construction in a single application. It adheres well to most building materials and will provide a continuous barrier against air infiltration. As a component of a "systems approach to proper building envelope construction in both residential and commercial construction, GuardFoam 55 OC provides exceptional performance in reducing heat transfer.

RECOMMENDED PRODUCT APPLICATIONS*

- Walls
- Floors
- Unvented Crawl Spaces
- Unvented Attics
- Vented Attics
- Vented Crawl Spaces
- Ceilings

*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
Ambient Temperature: 50° - 120°F

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 OC
Equipment Dynamic Pressure	1,100 - 1,500 psi
Preheat Temperature	125° - 140° F (52° - 60° C)
Hose Heat Temperature	125° - 140° F (52° - 60° C)
Drum Temperature Storage	65° - 85° F (18° - 29° C)

The shelf life will be 90 days when stored within recommended temperature range.
2:1 transfer pumps are recommended for material transfer from container to the proportioner.

PHYSICAL PROPERTIES

Properties	Test Method/ Requirements	Value
Aged "R" Value	ASTM C 518	3.9 per inch
Core Density	ASTM D 1622	.4-.6 lbs./ft3
Open Cell Content	ASTM D 2856	>94%
Tensile Strength	ASTM D 1623	3 psi
Dimensional Stability: 28 days at 160°F, 100%RH	ASTM D 2126 15% max by volume change	3%
Sound Transmission Coefficient	ASTM E 90-85/E 413 Sound Transmission Loss in dB	41

CREDENTIALS/CERTIFICATIONS*

- ICC ESR-2847

GuardFoam 55 OC 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
FlameSpread	≤25	≤75	Non Rated
Smoke Development	≤450	≤450	Non Rated

* Manufactured by Lapolla Industries, Inc. (FL 500)

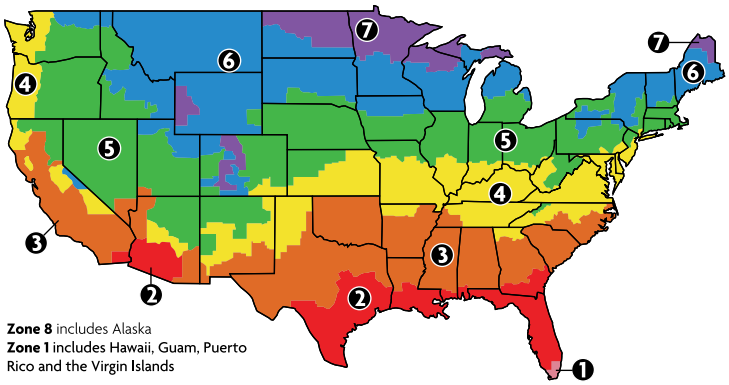
Applicators should limit GuardFoam 55 OC thickness to 6 inches per pass for optimal processing and physical properties. Second passes if necessary should be applied after 10 minutes of cure time. If additional passes are needed, applicators should wait 30 minutes between passes for optimal foam processing.

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 OC from proportioner back into drum. Do not recirculate or mix other suppliers' "A" or "B" component into GuardFoam containers. The plural component proportioner must be capable of supplying each component within ± 2% of the desired 1:1 mixing ratio by volume.

VAPOR RETARDERS

Referencing the 2008 DOE R-value recommendation map, Guardian recommends the use of an approved vapor retarder in climate zones 5, 6, 7 and 8.

In cases where a vapor retarder is used in conjunction with GuardFoam 55, it is important that all surrounding building materials be dry at the time of installation, Local building code officials should always be consulted and their recommendations followed in these matters.



Zone 8 includes Alaska
Zone 1 includes Hawaii, Guam, Puerto Rico and the Virgin Islands

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. When installed within an attic or crawl space, an approved ignition barrier may be required, and is recommended by Guardian in any case. Consult local building code officials to ensure this application meets codes and regulations. 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 similar full scale 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.

SAFETY INFORMATION

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. Persons with known respiratory ailments should avoid exposure to the "A" component. The "A" component contains reactive isocynate groups while the "B" component contains amine and/or catalysts. Both materials must be handled and used with adequate ventilation. Routes of entry are eye and skin absorption and inhalation. Avoid breathing vapors or aerosols. Wear a NIOSH approved respirator (Supplied air respirator is recommended where exposures are unknown. A self-contained breathing apparatus may be required in areas with high exposures and/or poor ventilation.). Wear protective clothing and gloves. If inhalation of vapors occurs, remove victim from contaminated area. Administer oxygen if breathing is difficult. Also avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. In case of eye contact, immediately flush with large amounts of water for at least fifteen minutes; in case of skin contact, wash area with soap and water; wash clothes separately before reuse. If symptoms persist, consult a physician. Use warning signs and caution tape to keep unprotected individuals away from the spray area during spray operations and for at least 30 minutes following completion of spraying to allow vapors to disperse. Warning signs should indicate that no "hot work" such as welding, soldering, or cutting with torches should take place within 35 feet of any exposed foam.

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.

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