



FOAMLOK™ 500

TECHNICAL DATA SHEET

ICC-ES ESR-2847
CCRR-1091

Product Use and Design

FOAM-LOK™ 500 is an open-cell spray applied foam, which when installed following application guidelines, adheres tenaciously to framing members and substrates. FOAM-LOK 500 provides superior energy economy and durability while significantly reducing unmanaged moisture and air infiltration. FOAMLOK 500 is a low VOC product allowing for 1 hour job site reentry and 4 hour job site re-occupancy at applicable ventilation rates.

FOAM-LOK 500 forms a completely sealed air barrier in wall cavities and can be used to fill stud wall construction in a single application. Its performance is superior to commonly used fiber-glass batt or blown-in insulation. It adheres well to most building materials and will provide a continuous barrier against air infiltration for the life of the building. As a component of a “systems” approach to proper building envelope construction in both residential and commercial construction, FOAM-LOK 500 provides exceptional performance in reducing heat transfer.

Recommended Product Applications

- Walls
- Floors
- Ceilings
- Attics
- Crawl Spaces
- Vaulted or Cathedral Ceilings

PHYSICAL PROPERTIES		
Properties	Test Method/Requirements	Value
Aged “R” Value	ASTM C 518 (ESR: 2847)	R-Value at 1 inch: 3.9
Core Density	ASTM D 1622	Nominal 0.5 pcf
Open-Cell Content	ASTM D 2856	>94%
Tensile Strength	ASTM D 1623	3 psi
Air Permanence	ASTM E 283	< 0.02 L/s · m ² at 3.5 inches
Dimensional Stability 28 days at 158°F, 97%RH	ASTM D 2126	3%
Moisture Vapor Transmission	ASTM E-96	1” - 22 Perms 2” - 15 Perms
ASTM Method E84	Class I	
Flame Spread	≤25	
Smoke Development	≤450	
ASTM E-119	1 Hour Non Load Bearing Wall - Wood or Steel* 2 Hour Load Bearing Wall - Wood*	

*contact HBS Engineering team for exact assembly

RECOMMENDED PROCESSING PARAMETERS	
Processing Designation	FOAM-LOK 500
Ambient Temperature	20°F - 120°F (-6 - 49°C)
Equipment Static Pressure	1,100 - 1,500 psi
Preheat Temperature (A&B/Hose)	130°F - 140°F (54 - 60°C)
Drum Preheat Temperature (prior to use)	65°F - 85°F (18 - 29°C)
Drum Storage Temperature (warehouse)	50°F - 90°F (10 - 32°C)

NFPA 286 APPENDIX X - ALTERNATE IGNITION BARRIER COATING APPLICATION

Maximum Thickness (in) (Wall Cavities)	Maximum Thickness (in) (Underside of Roof)	Intumescent Coating (Minimum Thickness)
5.5	11.5	DC 315 4 wet mils (3 dry mils)
9.5	15	Flame Seal IB 6 wet mils (3 dry mils)

Room Corner Fire Testing

NFPA 286 - ALTERNATE THERMAL BARRIER COATING APPLICATION

Maximum Thickness (in) (Wall Cavities)	Maximum Thickness (in) (Underside of Roof)	Intumescent Coating (Minimum Thickness)
8.5	14	DC 315 14 wet mils (9 dry mils)
7.5	11.25	F10E 18 wet mils (12 dry mils)
8.5	14	No Burn Plus ThB 14 wet mils (9 dry mils)

END USE CONFIGURATION (UNCOATED ATTIC) THICKNESS GUIDE

	Minimum Thickness (in)	Maximum Thickness (in)
Wall Cavities	3	15
Underside of Roof	3	15

Material Shelf Life:

Six (6) months when stored within recommended temperature range. 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.

- 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 circulate or mix other suppliers' "A" or "B" component into FOAM-LOK containers.
- The plural component proportioner must be capable of supplying each component within ± 2% of the desired 1:1 mixing ratio by volume.

Ventilation Rate (Air Changes Per Hour)	Re-Entry Period For: Sprayers, Helpers, Informed, Trade Workers & Contractors	Re-Occupancy Period For All Others
At 20.0 ACH	1 Hour	4 Hours

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 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 protections.

Safety and Handling

Respiratory protection is **MANDATORY!** Huntsman Building Solutions requires that supplied air and a full face mask be used during the application of any spray applied foam system. Contact Huntsman Building Solutions for a copy of the Model Respiratory Protection Program developed by CPI or visit their web site at www.polyurethane.org. Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups. The 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. Applicators should ensure the safety of the job site 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.

In Case of Spills or Leaks

- Utilize appropriate personal protective equipment
- Ventilate area to remove vapors
- 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
- Report sizable 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.

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 an easily accessible portion of the work area.

DISCLAIMER

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CODE
COMPLIANCE



Intertek