



# FOAMLOK™ 500

## TECHNICAL DATA SHEET

ICC ESR-4242  
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 2" x 6" 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

**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)

**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

Physical Properties		
Properties	Test Method/Requirements	Value
Aged "R" Value	ASTM C 518	3.7 per inch
Core Density	ASTM D 1622	Nominal 0.45 pcf
Open-Cell Content	ASTM D 2856	>94%
Tensile Strength	ASTM D 1623	3 psi
Air Permeance	ASTM E 283-04	< 0.02 L/s.m <sup>2</sup> at 3.5 inches
Dimensional Stability 28 days at 160°F, 100%RH	ASTM D 2126 (15% max by volume change)	3%
Sound Transmission	ASTM E413-2004 ASTM E1332-90 ASTM C423-02a	Sound Transmission Class 41 Indoor-Outdoor Transmission Class 30 Noise Reduction Coefficient 0.10
Moisture Vapor Transmission	ASTM E-96	1" - 22 Perms   2" - 15 Perms
Flammability	ASTM E 970 / >0.12	.19
Flammability	NFPA 259	1812 BTU / ft <sup>2</sup>   20.6 MJ / m <sup>2</sup>

**Credentials/Certifications**

**ICC ESR-4242**

FOAM-LOK™ 500 is a Class I formulation, as Tested per ASTM E84, and possess the flammability characteristics shown: (UL 723, NFPA 255, UBC 8-1)

**CCRR-1091**

FOAM-LOK™ 500 has been evaluated by Priest & Associates Consulting, LLC according to Section 3.2.2.3 AC377 (2015) as per IBC and IRC code sections.

ASTM Method E84	Class I
Flame Spread	≤25
Smoke Development	≤450
ASTM E-1354	PASSED
ASTM E-119	1 Hour Non Load Bearing Wall - Wood or Steel

**Room Corner Fire Testing (Without Prescriptive Thermal Barrier)**

<b>*NFPA 286</b>	
Location	SPF Thickness *
Wall and Cavities	Up to 12 in (305 mm)
<b>*Diversified Modified NFPA 286 Per Appendix X</b>	
Wall	Up to 5.50 inches
Cavities	Up to 11.50 inches

\*4 Wet mils / 3 Dry mils FIRE-LOK / DC315 Required

**\*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 8 INCHES PER APPLICATION. THE FOAM SHOULD BE ALLOWED TO COOL FOR 10 TO 20 MINUTES OR UNTIL THE SURFACE TEMPERATURE HAS RETURNED TO AMBIENT BEFORE ADDITIONAL APPLICATIONS OF FOAM ARE ATTEMPTED. FOAM APPLIED IN EXCESS OF 8 INCHES OR WITHOUT ALLOWING FOR COOLING MAY RESULT IN, BUT IS NOT LIMITED TO EXCESS HEAT BUILD-UP AND COULD 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 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](http://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 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.

## 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 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.

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

