

# FOAM-LOK™ 500 EU

## Open-Cell Spray Insulation



### Product Design

FOAM-LOK™ FL 500 EU is an Open-Cell spray polyurethane foam, which when installed following application guidelines, adheres tenaciously to framing members and substrates. FOAM-LOK™ FL 500 EU has been tested in accordance with EN 14315-1:2013.

### Product Use

FOAM-LOK™ FL 500 EU 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 filtration 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™ FL 500 EU provides exceptional performance in reducing heat transfer.

### Recommended Product Applications

- Walls
- Ceilings
- Attics
- Partitions
- Floors
- Roofs
- Lofts
- Suspended Ceilings

### Recommended Product Parameters

Processing Designation	FOAM-LOK™ FL 500 EU
Ambient Temperature	27-49°C

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 to acceptable combinations of gun chamber size, proportioner output, and material pressures.

Processing Designation	FOAM-LOK™ FL 500 EU
Equipment Dynamic Pressure	1,100 - 1,500 psi
Preheat Temperature	110 – 135 °F (43 – 57°C)
Hose Heat Temperature	110 – 135 °F (43 – 57°C)
Drum Temperature Storage	65 - 85 °F (18 - 29 °C)
Material Shelf Life	(6) months when stored within recommended temperature range.

- **2:1** transfer pumps are recommended for material transfer from container to 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 supplier's "A" or "B" components into FL 500 EU containers.
- The plural component proportioner must be capable of supplying each component with ±2% of the desired 1:1 mixing ratio by volume.

FOAM-LOK™ FL 500 EU should not be applied in excess of 152 mm per application. The foam should be allowed to cool for 20 - 30 minutes or until the surface temperature has returned to ambient before additional applications of foam are attempted. Foam applied in excess of 152 mm or without allowing for cooling may result in, but no limited to excess heat build-up and result in fire or the generation of offensive odors that may not dissipate with time.

### Credentials/Certifications

Evaluation Report(s)	
<b>Trade Name:</b>	FOAM-LOK™ FL 500 EU
<b>Holder of Approval:</b>	Lapolla Industries, Inc. 15402 Vantage Pkwy E. Ste. 322 Houston, TX. 77032
<b>Generic Type &amp; Use of Construction Product:</b>	Sprayed Applied Rigid Urethane Foam For Use as An Insulation Material In Walls, Attic or Loft Applications.
<b>TZUS Evaluation Report(s):</b> No. 010-035273 No. 1020-CPR-010-035272	5 Pages: Including 8 Annexes 4 Pages: Including 3 Annexes
<b>BBA</b> British Board of Agreement <b>Agreement Certificate 13/4990</b>	Product Sheet 1 Product Sheet 2

### Physical Properties

Characteristics	Test Results	Test Report
<b>Reaction Profile and Free-Rise Density</b> 21 °C Cream Time (CT) Gel Time (GT) Tack Free Time (TFT) Core Free Rise Density (FRC)	1.5 s 6.5 s 10.5 s 7.6 kg/m <sup>3</sup>	Annex EEN 14315-1
<b>Reaction to Fire</b> <i>Foam Only:</i> <i>Protected by 9.5mm Gypsum</i>	Class E B-s1, d0	(EN 13501-1+A1)
<b>Release of Dangerous Substances</b>	Does Not Contain Or Release Dangerous Substances	Written Declaration By The Manufacturer
<b>Water Absorption</b>	Surface w/skin: 14.3 kg/m <sup>2</sup> Surface w/out skin: 13.9 kg/m <sup>2</sup>	EN 1609, method B
<b>Compression Strength</b> At 10% Linear Deformation	10.2 kPa	EN 826
<b>Water Vapour Permeability</b> w µ	13,97 mg/m <sup>2</sup> .h.Pa 2.8	EN 12086, method A
<b>Tensile Strength</b> Perpendicular To Faces	7.4 kPa	Annex F of EN 14315-1
<b>Volume Percentage of Closed Cell Content</b> $\Psi_0$	7.7% <i>Table 1 of EN 14315-1 as Class CCC1 For Closed Cell Content &lt;20%</i>	EN ISO 4590
<b>Sound Absorption</b> Weighted Sound Absorption Coefficient $\alpha_w$ (relates to thickness: 100mm)	0.50 <i>Note: Evaluated according to EN ISO 11654 as Class D (Absorptive)</i>	EN ISO 354; EN ISO 11654
<b>Deformation Under Specified Compressive Load</b> 20kPa and Temperature Conditions - (80±1)°C; (48±1) h	88.1 %	EN 1605
<b>Thermal Conductivity</b> After Aging After Conditioning (175±5) Days at (70±2)°C and 16 Hours at (23±2)°C/(50±10)% r.h. a) $\bar{\kappa}$ mean -thickness 30mm -thickness 100mm -thickness 200mm	0.0376 W/(m.K) 0.0375 W/(m.K) 0.0370 W/(m.K)	Clause C.4 of EN 14315-1
<b>Dimensional Stability</b> a) (70±2) °C, (90±5)%RH, 48 Hours In The Direction Of Length/Width/Thickness	-2.2 % -1.9 % -2.3 %	EN 1604
<b>Dimensional Stability</b> a) (-20±2) °C, 48 Hours In The Direction Of Length/Width/Thickness	0 % 0 % 0 %	EN 1604



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Rev. Date: 7/12/2016

# FOAM-LOK™

SPRAY FOAM INSULATION

### Thermal Barrier

Refer to local building codes and requirements for definitions.

### Handling and Safety

Respiratory protection is **MANDATORY!** Lapolla requires that supplied air and a full face mask be used during the application of any spray applied foam system. Contact Lapolla Industries 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. The standards and values shown are based on U.S. information and testing. European or regional information and requirements may vary, please consult your local authority for additional information.

Positive pressure ventilation of the work area is required 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.

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 sizable spills to proper environmental agencies in compliance with local or regional regulations

### 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.

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Lapolla Industries, Inc. | 15402 Vantage Parkway E. Ste. 322, Houston, Texas 77032 | (888) 4-LAPOLLA | [Lapolla.com](http://Lapolla.com)