



## Niax\* FLE-500LF

URETHANE ADDITIVES – FLEXIBLE FOAM

### Description

Niax\* Flame Lamination FLE-500LF is a low viscosity additive designed to improve adhesion properties of polyurethane flexible foam. Its rapid build-up of tack free time adhesion is a new approach to FLE foam production. FLE-500LF based foams impart high adhesion properties and bonding strength after flame lamination when compared to other common FL additives used in the market. FLE-500LF is easy to handle and it may be used as sole additive.

### Key Features and Benefits

Zero phenol and low emission

Good processing latitude can be maintained in the typical use level range by reducing Stannous Octoate by 15% to 30% and increasing amine catalyst by 10% to 20%

Addition of FLE-500LF may reduce Flame Retardant use level when compared to other FL products

Rapid re-solidification of melted foams offers stronger initial adhesion strength between foam and textile, thus providing faster lamination speed and improved economics

FLE-500LF is a reactive material resulting in lower fogging and VOC potential

High peeling strength can be achieved across a broad range of textiles and foam densities

### Typical Physical Properties

Appearance	Clear, Liquid
Viscosity at 25 °C, cSt	300-500
Specific gravity at 25 °C	1.05
Hydroxyl value, mg KOH/g	530
Flash Point (Pensky-Marten Closed Cup (ASTM D 93), °C)	123

Typical properties are average data and are not to be used as or to develop specifications



## Formulating Guide

Niax FLE-500LF is a reactive additive therefore with increasing levels in the foam formulations the following changes may need to be applied at 3 to 5 parts additive use levels: Stannous Octoate level needs to be reduced between 15% and 30% and amine catalyst increased by 10% to 20% accordingly to obtain quality foam.

## Flame Bonding Overview

Niax FLE-500LF provides flexible polyurethane foam high adhesion to textile during flame lamination processes. The product can be used with and without auxiliary flame retardants

Recommended use levels between 3 - 5 parts per hundred parts of polyol (pphp)

Improved peeling strength can be achieved by using Niax FLE-500LF in combination with Niax Silicone L-645FL

Ether Foam	Flame Retarded Foam	Niax FLE-500LF	Ester Foam
Low Foam Adhesion			Strong Foam Adhesion

## Storage

Niax FLE-500LF reacts with atmospheric moisture to generate acids. Care should be taken to avoid moisture in the handling of this additive. Samples as well as product should be stored in tightly sealed containers. In these conditions shelf life is 48 months. It is recommended to meter the product via a separate line.



## Customer Service Centers

### Worldwide

4information@momentive.com  
+1 614 986 2495 / T +1 800 295 2392

### North America

**Silicones**  
T +1 800 332 3390  
**Consumer Sealants/  
Construction Sealants and  
Adhesives**  
T +1 877 943 7325

### Latin America

**South America**  
T +55 11 4534 9650

**Mexico and Central America**  
T +52 55 2169 7670

### Europe, Middle East, Africa and India

T +00 800 4321 1000 / +40 21  
3111848

### Pacific

**China**  
T +800 820 0202 / +86 21 3860 4892

**Japan**  
T +0120 975 400 / +81 276 20 6182

**Korea**  
T +82 2 6201 4600

**Malaysia**  
T +60 3 9206 1532

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

### Product Safety, Handling and Storage

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. MSDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

### Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

### DISCLAIMER:

THE MATERIALS, PRODUCTS AND SERVICES OF MOMENTIVE PERFORMANCE MATERIALS INC. AND ITS SUBSIDIARIES AND AFFILIATES (COLLECTIVELY "SUPPLIER"), ARE SOLD SUBJECT TO SUPPLIER'S STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT, PRINTED ON THE BACK OF ORDER ACKNOWLEDGMENTS AND INVOICES, AND AVAILABLE UPON REQUEST. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, SUPPLIER MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN SUPPLIER'S STANDARD CONDITIONS OF SALE, SUPPLIER AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Supplier's materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Supplier's products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Supplier's standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Supplier. No statement contained herein concerning a possible or suggested use of any material, product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right of Supplier covering such use or design, or as a recommendation for the use of such material, product, service or design in the infringement of any patent or other intellectual property right.

Momentive and the Momentive logo are trademarks of Momentive Performance Materials Inc.