



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.



Provisional Technical Data Sheet



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

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