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**MEMBER OF EOTA**

## European Technical Approval ETA-11/0241

(The original version is in Czech language, Translation in English language was prepared by TZÚS)

Obchodní název:  
*Trade name:*

**FOAM-LOK™ FL 500**

Držitel schválení:  
*Holder of approval:*

Lapolla Industries, Inc.  
154 02 Vantage Parkway East, Suite 322  
Houston  
Texas 77032  
USA

Druh a použití výrobku:

Měkká pěnová polyuretanová izolace – tepelná izolace aplikovaná stříkáním

*Generic type and use of construction product:*

*Polyurethane insulation soft foam – spray applied thermal insulation*

Platnost od:  
do:  
*Validity from:*  
*to:*

07.07.2011  
06.07.2016

Výrobce:  
*Manufacturer:*

Lapolla Industries, Inc.  
154 02 Vantage Parkway East, Suite 322  
Houston  
Texas 77032  
USA

Toto Evropské technické schválení obsahuje:  
*This European Technical Approval contains:*

7 stran  
*7 pages*



European Organisation for Technical Approvals  
Evropská organizace pro technické schvalování

## I LEGAL BASES AND GENERAL CONDITIONS

- 1 This European Technical Approval is issued by the Technical and Test Institute for Construction Prague (Technický a zkušební ústav stavební Praha, s.p.) in accordance with:
  - Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products<sup>1</sup>, modified by the Council Directive 93/68/EEC<sup>2</sup>; and Regulation (EC) No.1882/2003 of the European Parliament and of the Council<sup>3</sup>;
  - the Government Decree No. 190/2002 Coll. as amended<sup>4</sup>;
  - Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC<sup>5</sup>;
  - Guideline for European Technical Approval of "Soft foam insulation" CUAP Nr. 12.01/21, edition October 2007
- 2 The Technical and Test Institute for Construction Prague is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.
- 3 This European Technical Approval is not to be transferred to manufacturers or agents of manufacturer other than those indicated on page 1, or manufacturing plants other than those laid down in the context of this European Technical Approval.
- 4 This European Technical Approval may be withdrawn by the Technical and Test Institute for Construction Prague in particular pursuant to information by the Commission according to Article 5.1 of the Council Directive 89/106/EEC.
- 5 Reproduction of this European Technical Approval including transmission by electronic means shall be in full version. However, partial reproduction can be made with the written consent of the Technical and Test Institute for Construction Prague. In this case, partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Approval.
- 6 The European Technical Approval is issued by the approval body in its official language. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

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<sup>1</sup> Official Journal of the European Communities n° L 40, 11.2.1989, p. 12

<sup>2</sup> Official Journal of the European Communities n° L 220, 30.8.1993, p. 1

<sup>3</sup> Official Journal of the European Union n° L 284, 31.10.2003, p. 1

<sup>4</sup> Collection of laws of the Czech Republic Vol. 79 No. 190, 21.5.2002 as amended

<sup>5</sup> Official Journal of the European Communities n° L 17, 20. 1.1994, p. 34

## II. SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

### 1 Definition of products and intended use

#### 1.1 Definition of product

Soft foam insulation is low density open cell insulation. The insulation is sprayed or injected. It is produced by mixing the components resin and polyisocyanate components together.

#### 1.2 Intended use

The product is intended to be used in walls, partitions, floors, intermediate floors and ceilings as thermal insulation. The insulation can be used in constructions where it is not exposed to wetting, weathering, heavy moisture transport, condensation or long term compression.

The minimum thickness of the insulation layer formed by the product is 50 mm.

The maximum thickness of the insulation layer formed by the product is 375 mm.

#### 1.3 Assumed working life of the construction product

The provisions made in this ETA are based on an assumed working life of the thermal insulation of 50 years, provided that the conditions laid down in sections for the packaging, transport, storage, installation, use, maintenance and repair of this ETA are met. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as means for choosing the right products in relation to the expected economically reasonable working life of the works.

## 2 Characteristics of products and methods of verification

### 2.1 General

The Characteristics of product and methods of verification of the soft foam insulation were carried out in compliance with the CUAP Nr.12.01/21 concerning "Soft foam insulation".

Table No. 1

Method of verification and assessment CUAP paragraph	Characteristic	Assessment of characteristic
<b>Essential Requirement 1: Mechanical resistance and stability</b>		
2.4.1	Corrosion developing capacity on metal constructions (CUAP Annex C)	White corrosion and small perforations in 0,075 mm thick zinc foil coupons in contact with insulation /14 days, relative humidity 90%, temperature (40±2)°C/ No perforations in 0,075 mm thick copper foil coupons in contact with insulation /14 days, relative humidity 90%, temperature (40±2)°C
<b>Essential Requirement 2: Safety in case of fire</b>		
2.4.2	Reaction to fire (EN 13501-1 + A1)	<b>Class E</b>
<b>Essential Requirement 3: Hygiene, health and environment</b>		
2.4.3	Release of dangerous substances	Does not release of dangerous substances <sup>*)</sup>
2.4.4	Water absorption (EN 1609)	<b>max. 25 kg/m<sup>2</sup></b>
2.4.5	Water vapour permeability (EN 12086)	<b>&gt; 7 mg/m<sup>2</sup>.h.Pa</b> <b>&lt; 5</b>
2.4.6	Susceptibility to mould growth (CUAP Annex B)	No Performance Determined

<b>Essential Requirement 4: Safety in use</b>		
Not relevant		
<b>Essential Requirement 5: Protection against noise</b>		
2.4.7	Dynamic stiffness (EN 29052-1) Compressibility (EN 12431)	No Performance Determined
<b>Essential Requirement 6: Energy economy and heat retention</b>		
2.4.8	Thermal conductivity: (EN ISO 10456)	$\lambda_{\text{Declared}}$ <b>0,037 W/m.K</b>
2.4.9	Compression strength at 10% deformation (EN 826)	<b>min. 9 kPa</b>
2.4.10	Tensile strength parallel to faces (EN 1608)	<b>min. 18 kPa</b>
2.4.11	Tensile strength perpendicular to faces (delamination) (EN 1607)	<b>min. 9 kPa</b>
2.4.12	Dimensional stability (EN 1604) a) (23±2)°C, 48 hours in the direction of length/width/thickness b) (60±2)°C, 48 hours in the direction of length/width/thickness c) (-20±2)°C, 48 hours in the direction of length/width/thickness	<-1;1>% / <-1;1>% / <-1;1>% <-1;1>% / <-1;1>% / <-1;1>% <-1;1>% / <-1;1>% / <-1;1>%

\*) In addition to the specific clauses relating to dangerous substances contained in this European Technical Approval, there may be other requirements applicable to the products falling within its scope( e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products directive, these requirements need also to be complied with, when and where they apply.

### **3 Evaluation and attestation of Conformity and CE marking**

#### **3.1. System of attestation of conformity**

According to the decision 99/91/EC of 25.01.1999 of the European Commission, the system 3 of attestation of conformity applies, since there is no improvements of the reaction to fire classification in the production process.

This system of attestation of conformity is defined as follows:

System 3: declaration of conformity of the product by the manufacturer on the basis of:

- a) Tasks for the manufacturer:
  - (1) Factory production control (FPC),
  - (2) Testing of samples taken at the factory in accordance with the prescribed test plan.
- b) Tasks for the Notified Body:
  - (3) Initial type testing of the product.

## **3.2. Responsibilities**

### **3.2.1 Tasks for the manufacturer**

#### **3.2.1.1 Factory production control (FPC)**

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, records of results performed. This production control system shall ensure that the product is in conformity with this European Technical Approval.

Technical and Test Institute for Construction Prague maintains a file describing the tasks and tests imposed on ETA holder. The file includes information of the raw materials and "Control Plan" which includes the type and frequency of the manufacturer production control agreed between approval holder and Technical and Test Institute for Construction Prague. The results of the factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

The "Control Plan" has been deposited with the Technical and Test Institute for Construction Prague, branch Prague and is handed over to the Notified Bodies involved in the conformity attestation procedure.

### **3.2.2 Tasks for the Notified Body**

The notified body shall perform the:

- Initial type-testing of the product (for system 3)

The results of the tests performed as part of the assessment for the European Technical Approval can be used unless there are any changes in the production line or plant. In such cases, the necessary initial type-testing has to be agreed between the Technical and Test Institute for Construction Prague and the Notified Bodies involved.

These tasks shall be performed in accordance with the provisions laid down in the Control Plan relating to the European Technical Approval.

The Notified Body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in (a) written report (reports).

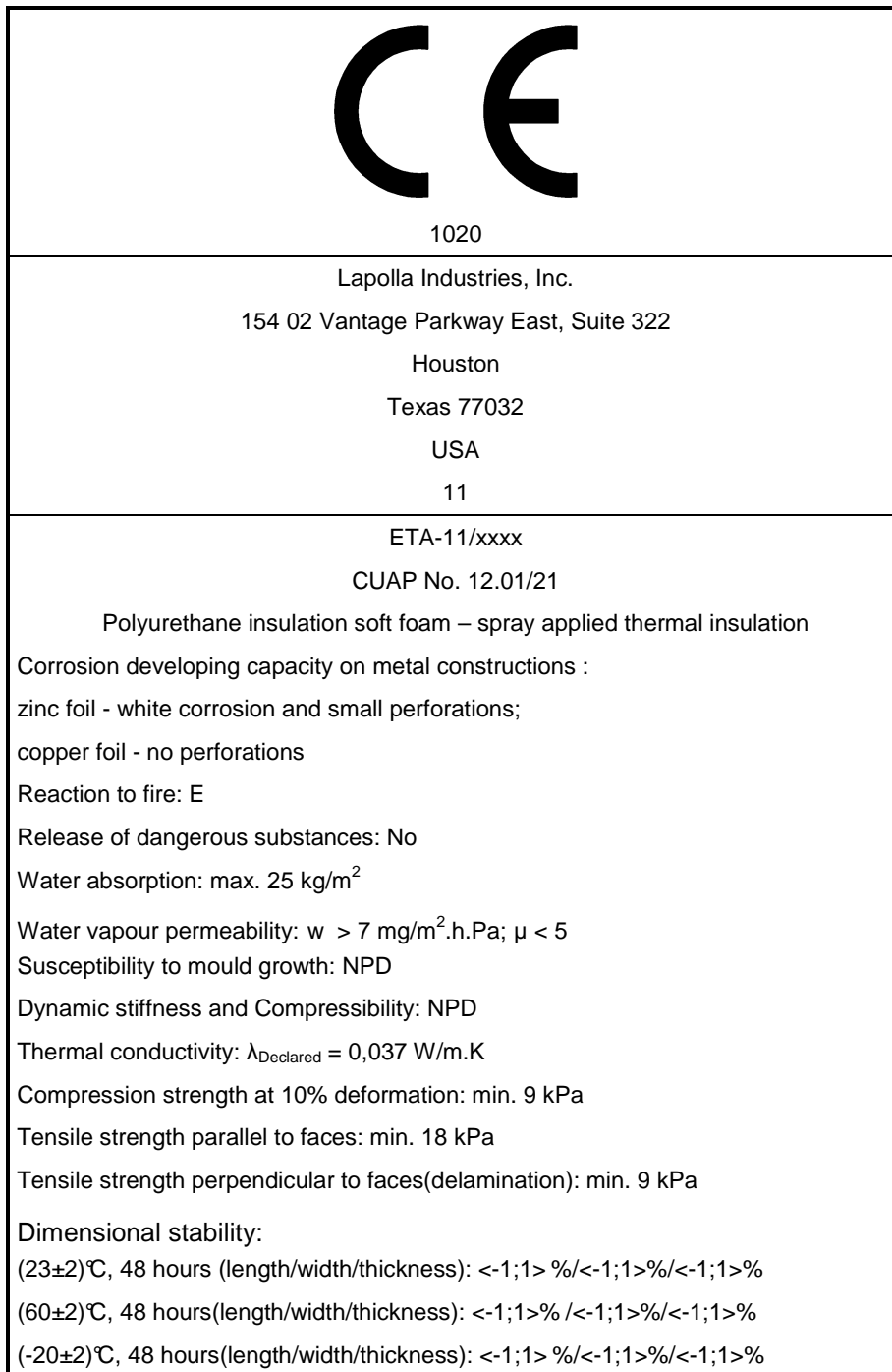
In cases where the provisions of the European Technical Approval and its Control Plan, are no longer fulfilled, the certification body shall withdraw the certificate of conformity and inform Technical and Test Institute for Construction Prague, without delay.

## **3.3. CE marking**

The CE marking shall be affixed either on the each packaging, on the delivery tickets included in the packages or on the commercial documents accompanying the product. The « CE-marking » shall be followed by the identification number of the Notified Certification Body involved and be accompanied by the following additional information:

- the name of the product (trade name as indicated in this ETA)
- the name and address of the producer (ETA-holder)/legal entity responsible for the manufacturer
- the two last digits of the year in which the CE marking was affixed
- the number of the European Technical Approval
- the number of the CUAP
- type/intended use of the product
- declared and most essential properties in accordance with section 2. of the European Technical Approval.

For the CE marking and accompanying information see picture No. 1.



Picture No. 1: CE marking and accompanying information

## **4 Assumptions under which the fitness of the product for the intended use was favourably assessed**

### **4.1. Manufacturing**

Manufacturing of the soft foam thermal insulation is based on the defined production method, use of defined raw materials and tolerances. If changes take place manufacturer is responsible to clarify if the change has an influence on the properties of the tested product according to the provisions of this CUAP.

### **4.2. Packaging, transport, storage of the product**

The insulation products are transported to the building site in barrels. The products components shall be stored at temperature 10°- 29°C before the installation.

### **4.3. Installation of the product in the works**

The thermal insulation is installed on to the building according to the instructions of the manufacturer. The suitability of the insulation to the planned purpose shall be evaluated taking into account what has been said in chapter 1.2.

### **4.4. Use, maintenance, repair**

The thermal insulation shall worked adequately when the construction where it is installed according to the instructions of the manufacturer is maintained and repaired so that the provisions of use given in chapter 1.2 of this CUAP are fulfilled.

## **5 Identification of the construction product**

The product which is the subject of the technical approval was identified according to the table 3 of the CUAP and properties are presented in the paragraph 2 of this ETA.

The original Czech version is signed by

**Ing. Jana Čurdová**  
Head of the Approval Body