

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-23/0897  
of 24 April 2024

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Fireblock M2440-E1 18 BV

Product family  
to which the construction product belongs

Intumescent products for fire sealing and fire stopping  
purposes

Manufacturer

mobil Kunststoffprofile AG  
Littenbachstraße 1  
9442 BERNECK  
SCHWEIZ

Manufacturing plant

mobil Kunststoffprofile AG  
Littenbachstraße 1  
9442 BERNECK  
SCHWEIZ

This European Technical Assessment  
contains

6 pages including 1 annex which forms an integral part of  
this assessment

This European Technical Assessment is  
issued in accordance with Regulation (EU)  
No 305/2011, on the basis of

EAD N° 350005-00-1104; Edition May 2015

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## Specific Part

### 1 Technical description of the product

Object of this European Technical Assessment (ETA) is the intumescent construction product "Fireblock M2440-E1 18 BV", which is assessed in accordance with EAD No. 350005-00-1104<sup>1</sup> as a construction product for fire sealing and fire stopping applications without specific end use (IU 1).

When exposed to high temperatures in case of fire, the intumescent product expands and generates a thermally insulating foam that seals joints and gaps, closes gaps and cavities and thus delays the passage and prevents the spread of heat, smoke, flames or a combination of these.

The intumescent product "Fireblock M2440-E1 18 BV" essentially consists of intumescent, expandable substances and a binder. It is manufactured in the form of strips, profiles, die-cast elements as well as multi-component co-extrudates. The product may also be equipped with a self-adhesive tape for fastening.

The intumescent product "Fireblock M2440-E1 18 BV" can be cut and customised when required.

The technical characteristics relevant for the fire sealing and fire stopping effects of the construction product "Fireblock M2440-E1 18 BV" are given in Annex 1.

### 2 Specification of the intended use in accordance with the applicable European Assessment Document (EAD)

The intumescent product "Fireblock M2440-E1 18 BV" is intended to be used as an essential component in, on or between construction products, construction elements, assemblies, kits and special constructions which need to meet requirements concerning the safety in case of fire.

In case of fire under the impact of high temperatures the product delays the heat transfer through fire resistant construction products and construction elements by foaming and thus restricts the spread of fire.

The performances in Section 3 can only be assumed if the specifications and boundary conditions in Section 3.3 are observed for the construction product described.

The test and assessment methods on which this ETA is based, lead to the assumption of working life of the intumescent construction product "Fireblock M2440-E1 18 BV" in final use of at least 10 years.

The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

<sup>1</sup> EAD 350005-00-1104, Edition May 2015, published in the Official Journal of the EU N° C 378/02 of 13 November 2015

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### 3 Performance of the product and references to the methods used for this assessment

#### 3.1 Safety in case of fire - BWR 2

##### 3.1.1 Reaction to fire

Essential characteristic	Performance
Reaction to fire	Class E in accordance with EN 13501-1 <sup>2</sup> .

##### 3.1.2 Resistance to fire

The performance "resistance to fire" shall be determined separately for every final use and shall be classified, if required for the construction element concerned.

#### 3.2 Hygiene, health and the environment - BWR 3

Essential characteristic	Performance
Content and release of dangerous substances	No dangerous substances <sup>3</sup>

The detailed declaration of the chemical composition of the intumescent construction product "Fireblock M2440-E1 18 BV" was assessed by DIBt and is deposited with DIBt.

This assessment is only valid if the chemical composition corresponds to the data deposited with the DIBt.

#### 3.3 General aspects

Durability testing shall be an integral part of assessing the basic works and performance requirements. The following specific provisions for use shall be complied with to ensure the durability of the performance.

The test and assessment of the performance under environmental conditions of type X (outdoor use) was carried out in accordance with EOTA Technical Report 024<sup>4</sup>, section 2.2.

Result:

The intumescent construction product "Fireblock M2440-E1 18 BV", in all delivery variants as well as cut-to-size pieces made from it can be used under use conditions of type X - product intended for use under climatic conditions of free weathering with exposure to rain, UV and frost and with occasional temperatures down to -20°C as well as constantly high humidity - without any change in the properties effective in case of fire and the resulting performance being to be expected. This assessment includes the unrestricted indoor use under the use conditions of type Y<sub>1</sub>, Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>. (See EOTA TR 024<sup>4</sup>, footnote 6).

In addition, for "Fireblock M2440-E1 18 BV" the following proofs were provided concerning the resistance of the product to special conditions according to EOTA TR 024<sup>4</sup>, section 2.3:

- clause 2.3.2 Exposure to a constant temperature of 80 °C for 40 days,
- clause 2.3.3 Subsequent over-painting (tested with coatings on the basis of acryl dispersion, alkyd resin, polyurethanacryl and epoxide resin)<sup>5</sup>
- clause 2.3.5 Exposure to solvents (tested with Butylacetat, Butanol, solvent naphtha and fuel)<sup>5</sup>

<sup>2</sup> EN 13501-1:2019-05 Fire classification of construction products and building elements, Part 1 Classification using test data from reaction to fire tests

<sup>3</sup> In accordance with the Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 (published in the Official Journal of the EU N° L 353 of 31/12/2008, p 1)

<sup>4</sup> EOTA TR 024 Technical description and assessment of reactive products effective in case of fire; amended edition August 2019

<sup>5</sup> Details of specific test conditions documented and deposited with DIBt

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- clause 2.3.5.1 Exposure to liquid chemicals (short time test with 5% hydrochloric acid solution and with 5% ammonium hydroxide solution)<sup>5</sup>
- clause 2.3.5.2 Exposure to chemical vapours (short time test over concentrated hydrochloric acid and saturated sodium hydroxide solution)<sup>5</sup>
- clause 2.3.4 Exposure to permanent wetness (water immersion for 4 weeks)<sup>5</sup>
- clause 2.3.6.2 Exposure to intimate contact with plastics (PVC, PE)<sup>5</sup>
- clause 2.3.6.1 Exposure to intimate contact with metal (sheets of steel and aluminium)<sup>5</sup>

The parameter "expansion ratio" and "expansion pressure" did not change essentially due to these exposures.

**4 Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base**

In accordance with the European Assessment Document EAD N° 350140-00-1106<sup>1</sup> the following legal basis applies: Decision of the commission N° 1999/454/EC<sup>6</sup>.

For the assessment and verification of constancy of performance (AVCP)

**system 1**

shall be applied (see Annex V to the Decision in conjunction with Article 65 (2) of Regulation (EU) No 305/2011) according to the following table:

Product	Intended use	characteristic	System
"Fireblock M2440-E1 18 BV"	Components effective in in case of fire when used in construction products, construction elements, kits and special assemblies	reaction to fire, properties relevant for the fire sealing and fire stopping effect	1

**5 Technical details necessary for the implementation of the procedure for assessment and verification of constancy of performance (AVCP) system 1, as provided for in the applicable European Assessment Document**

The technical details necessary for the implementation of the system 1 for assessment and verification of constancy of performance are laid down in the control plan (confidential part of this ETA) deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 24 April 2024 by Deutsches Institut für Bautechnik

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Head of the Section

*Beglaubigt:*  
Dr.-Ing Dierke

<sup>6</sup> Decision of the commission N° 1999/454/EC of 22 June 1999 (OJ of the EU L 178 of 14 July 1999, p 42), amended by EC Decision 2001/596/EC of 8 January 2001(OJ of the EU L 209 of 2 August 2001, p 2)

ANNEX 1

**CHARACTERISTICS OF THE CONSTRUCTION PRODUCT RELEVANT FOR THE  
FIRE SEALING AND FIRE STOPPING EFFECTS OF**

**"Fireblock M2440-E1 18 BV"**

Characteristic	Range of parameters and tolerances*	Test method <sup>7</sup>
Nominal thickness and tolerance	1,0 mm to 5,0 mm ± 10 % for each	see control plan
Loss of mass at a certain temperature (tested at 500 °C for 30 minutes)	76,0 % bis 86,0 %	
Expansion ratio (tested at 500 °C for 30 minutes without a top load)	at a thickness of 1,3 mm: 23,5 bis 27,5 at a thickness of 5,0 mm: 9,5 bis 11,0	
Expansion pressure (tested at 350 °C without lateral restriction)	at a thickness of 1,3 mm: 0,32 N/mm <sup>2</sup> to 0,58 N/mm <sup>2</sup> at a thickness of 5,0 mm: 0,20 N/mm <sup>2</sup> to 0,40 N/mm <sup>2</sup>	

\* The characteristic parameters here are specified for "Fireblock M2440-E1 18 BV" of a chemical composition as deposited

<sup>7</sup> Details for the tests deposited with DIBt