

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

ETA-17/1001  
of 22 February 2018

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-B2a

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 form 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 350005-00-1104

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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-B2a" and preformed profiles, die-cast elements, coextrudated elements<sup>1</sup> made of the product and cuts of these.

In case of fire, exposed to high temperatures, the intumescent product expands and generates foam. This foam seals joints and gaps, closes voids and openings. Thus, the foam restricts the passage and the spread of heat, smoke, flames or any combination of these.

The technical characteristics relevant for the fire sealing and fire stopping effects of the construction product "Fireblock M2440-B2a" are given in Annex 1.

The construction product "Fireblock M2440-B2a" is a granulate, used as the basis for factory made preformed profiles, die-cast elements and coextrudates. "Fireblock M2440-B2a" consists essentially of intumescent substances and a binder and where required a copolymer<sup>1</sup>.

The construction product and its modifications of coextrudated or die-cast elements are delivered in form of profiles or cuts e.g. sectional strips.

The intumescent construction product "Fireblock M2440-B2a" can be cut on demand.

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

The construction product "Fireblock M2440-B2a" is assessed on the basis of EAD 350005-00-1104<sup>2</sup> as an intumescent product for fire sealing and fire stopping purposes without defined final intended use (IU 1).

The construction product is intended to be used as an essential component in 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, the product delays the heat transfer through fire resistant construction products and construction elements by expanding under the impact of high temperatures and thus restricting the spread of fire.

The performance given in section 3 is only valid, if the construction product "Fireblock M2440-B2a" in use considers the instructions and the conditions stated in section 3.3.

The test and assessment methods on which this European Technical Assessment is based, lead to the assumption of working life of the intumescent construction product "Fireblock M2440-B2a" of at least 10 years in final use.

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> Copolymeres and the reactive rate in the cross section of profiles deposited with DIBt  
<sup>2</sup> Official Journal of the EU N° C 378/02 of 13/11/2015

### 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>3</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>4</sup>

The detailed chemical composition of the intumescent construction product "Fireblock M2440-B2a" was assessed by DIBt and is deposited with 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 testing and the assessment of the relevant product performance were carried out for environmental conditions of type Y<sub>2</sub> (indoor use) in accordance with EOTA Technical Report 024, section 4.2.5<sup>5</sup>

Result:

The intumescent construction product "Fireblock M2440-B2a" and its modifications (e.g. die-cast elements, coextrudates) and cuts of it can be used under use conditions of type Y<sub>2</sub> – product intended for use also at temperatures round 0 °C but no exposure to rain or UV-radiation, for internal application at high humidity, inclusive temporary, changing or permanent condensation - without having to fear essential changes in the relevant fire sealing and fire stopping properties and the resulting performance. This assessment includes the unrestricted in-door use under use conditions of type Z<sub>1</sub> and Z<sub>2</sub>.

Additionally the product "Fireblock M2440-B2a" was tested under specific durability conditions according to EOTA TR 024, section 4.3

- Exposure to a constant temperature of 80 °C for 40 days,
- Exposure to solvents (tested with Butylacetat, Butanol, solvent naphtha and fuel)
- Subsequent over-painting (tested with coatings on the basis of acryl dispersion, alkyd resin, polyurethanacryl and epoxide resin,
- Exposure to permanent wetness (water immersion for 4 weeks),
- Exposure to intimate contact to plastics (PVC, PE).

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

<sup>3</sup> EN 13501-1 Fire classification of construction products and building elements, Part 1 Classification using test data from reaction to fire tests and A1:2009

<sup>4</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>5</sup> EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and products; edition as amended July 2009

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**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 No 350005-00-1104 the 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 33) is the legal basis for the determination of the AVCP system.

So system 1 applies for the assessment and verification of constancy of performance (AVCP). (See Annex V in conjunction with Article 65 (2) of the Regulation (EU) N° 305/2011) and the following table:

Product	Intended use	characteristic	System
"Fireblock M2440-B2a	Components effective in view of safety in case of fire (BWR 2) 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 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 22 February 2018 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe  
Head of the Department

*beglaubigt:*  
Dr.-Ing. Dierke

## CHARACTERISTICS OF THE CONSTRUCTION PRODUCT RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECTS OF "Fireblock M2440-B2a"

Characteristic	Test method <sup>6</sup>	Range of determined values and tolerances*
Nominal thickness and tolerance in thickness	EOTA TR 024, cl. 3.1.2	0,8 mm bis 3,0 mm: $\pm 20 \%$ > 3,0 mm: $\pm 15 \%$
Expansion ratio	EOTA TR 024, cl. 3.1.11 with a top-load	at a thickness of ca. 0,8 mm: 12,5 to 24,5 at a thickness of ca. 8,0 mm: 10,0 to 15,0
Expansion pressure	EOTA TR 024, cl. 3.1.12, without lateral restriction	at a thickness of ca. 0,8 mm: 0,50 N/mm <sup>2</sup> to 1,30 N/mm <sup>2</sup> at a thickness of ca. 8,0 mm: 0,25 N/mm <sup>2</sup> to 0,50 N/mm <sup>2</sup>

\* The characteristic values here are specified for "Fireblock M2440-B2a" without any copolymere

<sup>6</sup> Details of the test method are deposited with DIBt