



Approval body for construction products and types of construction

#### **Bautechnisches Prüfamt**

An institution established by the Federal and Laender Governments



### European Technical Assessment

### ETA-15/0664 of 16 June 2016

English translation prepared by DIBt - Original version in German language

#### **General Part**

Technical Assessment Body issuing the European Technical Assessment:

Trade name of the construction product

Product family to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment contains

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

Deutsches Institut für Bautechnik

"Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>"

Intumescent products for fire sealing and fire stopping purposes

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01<sup>1</sup>

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

European Assessment Document (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 "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>".

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 fire sealing and fire stopping effects of the construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" are given in Annex 1.

The construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" is a pasty intumescent putty of grey colour, which essentially consists of intumescent substances and a binder. "

The construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" is supplied filled in cartridges. It can be used in thicknesses up to 30 mm (tolerance in nominal thickness  $\pm$  10 %).

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

The construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" 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 "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" 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 "Curaflam<sup>®</sup> Inject  $BS^{Pro}$ " 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 "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" 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.



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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>3</sup>

The intumescent construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" meets the reaction to fire requirements of 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 "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" 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 product performance were carried out for environmental conditions of type X (out-door use) in accordance with EOTA TR 024, section 4.2.3  $^{5}$ 

Result:

The intumescent construction product "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>" can be used under use conditions of type X, without having to fear essential changes in the relevant fire sealing and fire stopping properties and the resulting performance. This assessment includes the in-door use under use conditions of type Y<sub>1</sub>, Y<sub>2</sub>, Z<sub>1</sub> and Z<sub>2</sub>.

If the product is intended to be used temporarily, occasionally or permanently under the impact of specific chemicals or aerosols, further testing is necessary.

<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

In accordance with the Regulation (EC) No 1272/2008 of 16/12/2008
 EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive

Materials, Components and products; amended version 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 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) 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
"Curaflam <sup>®</sup> Inject BS <sup>Pro</sup> " putty	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 16. June 2016 by Deutsches Institut für Bautechnik

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ANNEX 1

# Characteristics of the construction product relevant for the fire sealing and fire stopping effects of "Curaflam<sup>®</sup> Inject BS<sup>Pro</sup>"

characteristic	Test method <sup>6</sup>	Range of determined values and tolerances
Density	EOTA TR 024, Abs. 3.1.4	1200 kg/m <sup>3</sup> bis 1450 kg/m <sup>3</sup>
Expansion ratio	EOTA TR 024, cl. 3.1.11 at 500 °C for 30 minutes with a top load	for a thickness of 3,0 mm: 8,5 to 15,0
Expansion pressure	EOTA TR 024 <sup>6</sup> , cl. 3.1.12 at 300 °C with samples of a thickness of ca 3 mm	0,40 N/mm <sup>2</sup> to 0,75 N/mm <sup>2</sup>

The chemical reaction starts at approximately 180 °C.

<sup>&</sup>lt;sup>6</sup> Details of test method are deposited with DIBt.