

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-10/0117
of 4 October 2016

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

ROKU® Strip

Product family
to which the construction product belongs

Intumescent product for fire sealing and fire stopping
purposes

Manufacturer

Rolf Kuhn GmbH
Jägersgrund 10
57339 Erndtebrück
DEUTSCHLAND

Manufacturing plant

11

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

European Assessment Document (EAD)
350005-00-1104

This version replaces

ETA-10/0117 issued on 3 June 2015

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.

Specific part

1 Technical description of the product

Object of this European technical assessment is the intumescent construction product "ROKU[®] Strip".

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

The technical characteristics used for fire sealing and fire stopping effect of the construction product "ROKU[®] Strip" are given in Annex 1.

The construction product "ROKU[®] Strip" is a flexible material produced in form of mats and strips up to a width of 320 mm (tolerance in width: $\pm 0,5$ mm) and in a range of nominal thickness between 1,0 mm to 8,0 mm. The intumescent product may be equipped on one side with a self-adhesive tape¹ and with a lamination of polyester¹ foil.

The product essentially consists of intumescent substances and a binder and may contribute the resistance to fire in case of fire, if used in fire resisting construction products, kits, elements and assemblies.

The product is delivered in coils or rolls or cut into strips, mats, panels or cut-outs of different shape. The product may be cut as desired on-site.

2 Specification of the intended use in accordance with the applicable European assessment Document

The construction product "ROKU[®] Strip" is assessed on the basis of EAD 350005-00-1104 as an intumescent product for fire sealing and fire stopping purposes without defined final use (IU 1).

"ROKU[®] Strip" is intended to be used as essential component in, between or on construction products, assemblies, construction elements, kits and special constructions which 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 foaming due to the effect of high temperatures and restricts the fire propagation.

The performance "resistance to fire" shall be tested for the final use if requested.

The performances given in Section 3 are only valid if the intumescent construction product "ROKU[®] Strip" is used considering the remarks and the boundary conditions of clause 3.4.

The test and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the intumescent construction product "ROKU[®] Strip" of at least 10 years².

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.

¹ type, manufacturer and specific parameters deposited with DIBt

² results of long-term aging (natural-aging) available

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

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

Essential characteristic	Performance
Reaction to fire	Class E according to EN 13501-1 ³

The intumescent construction product "ROKU[®] Strip" - the origin variant and the described laminated variants – meets the requirements of class E according to EN 13501-1 concerning reaction to fire.

3.1.2 Resistance to fire

The performance "Resistance to fire" shall be demonstrated separately for the final use if requested.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content and release of dangerous substances	No dangerous substances

The detailed chemical composition of the intumescent construction product "ROKU[®] Strip" was assessed at DIBt and is deposited with DIBt.

3.3 Sustainable use of natural resources (BWR 7)

No performance was determined for the sustainable use of natural resources.

3.4 General aspects

The evidence of durability is part of testing the basic works requirements and the achievement of the performance assessed. The durability is only presumed, if the provisions for the intended use are considered.

The proof and its assessment concerning applicability under climatic conditions of type X (outdoor application) were carried out in accordance with EOTA Technical Report 024⁴, clause 4.2.

Conclusion:

The intumescent construction product "ROKU[®] Strip" as well cuts made from may be used under use conditions type X (outdoor application) without expecting essential changes in the relevant fire sealing and fire stopping properties and the resulting performance.

Additionally the product was tested under specific application 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 and permanent condensation) for 4 weeks,
- Exposure to intimate contact to plastics (PVC, PE).

The characteristics "expansion ratio" and "expansion pressure" did not change essentially due to the exposure.

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

⁴ EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and products; amended version July 2009

English translation prepared by DIBt

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

According to EAD No. 35 0005-01-1104 "Intumescent products for fire sealing and fire stopping purposes", the applicable European legal act is: EC Decision 1999/454/EC of 22 June 1999, amended by EC Decision 2001/596/EC of 8 January 2001

the system to be applied is (are): 1

(see Regulation (EU) N° 305/2011 annex V in conjunction with Article 65, paragraph 2). See the the following table

Product	Intended use	characteristic	System
"ROKU® Strip" without /with Polyester foil or self-adhesive tape or cuts from it	Components effective in the view of safety in case of fire (BWR) used in construction elements, kits and assemblies	Reaction to fire properties relevant for the fire sealing and fire stopping effect	1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

Issued in Berlin on 4 October 2016 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe
Head of Department

beglaubigt:
Dr.-Ing. Dierke

ANNEX 1

CHARACTERISTICS RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECTS of THE CONSTRUCTION PRODUCT "ROKU® Strip"

Characteristics	Test method	Range and tolerance
Thickness of strips	TR 024, clause 3.1.2	1,0 mm to 8,0 mm Tolerance: ± 10 % of nominal thickness
Expansion ratio	TR 024, clause 3.1.11 Method 1 at 550 °C for 30 minutes with a top load	nominal thickness 1,5 mm 18,0 to 38,0 nominal thickness 7,0 mm 11,0 to 34,0
Expansion pressure	TR 024, clause 3.1.12 Method 4 at 300 °C	nominal thickness 1,5 mm ≥ 0,80 N/mm ² nominal thickness 7,0 mm ≥ 0,40 N/mm ²