

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

Draft ETA-20/0008 of 6 March 2020

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

Aestuver Tape DSB

Product family
to which the construction product belongs

Intumescent products for fire sealing and fire stopping
purposes

Manufacturer

James Hardie Europe GmbH
Bennigsen Platz 1
40474 Düsseldorf
DEUTSCHLAND

Manufacturing plant

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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 350005-00-1104

¹ Address known at DIBt

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Specific Part

1 Technical description of the product

Object of this European Technical Assessment (ETA) is the intumescent construction product "Aestuver Tape DSB" without or with a self-adhesive tape².

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 flexible intumescent construction product "Aestuver Tape DSB" is produced in form of factory-cut strips and consists essentially of intumescent substances and a binder. It is produced of nominal thicknesses between 0,5 mm and 2,0 mm with a tolerance in thickness of $\pm 0,1$ mm and in any width between 5 mm and 340 mm. It also may be processed to blanked-out pieces at the factory.

The construction product is delivered in rolls or as factory-made strips, cuts or blank-outs without any lamination or equipped on one side with a self-adhesive tape².

The technical characteristics relevant for fire sealing and fire stopping effects of the construction product "Aestuver Tape DSB" are given in Annex 1.

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

The construction product "Aestuver Tape DSB" is assessed on the basis of EAD 350005-00-1104³, edition May 2015 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 "Aestuver Tape DSB" in use considers the instructions and the conditions stated in section 3.3.

The test and assessment methods on which this European Technical Assessment (ETA) is based, lead to the assumption of working life of the intumescent construction product "Aestuver Tape DSB" in final use of at least 10 years⁴.

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.

² Type, manufacturer and characteristics deposited with DIBt.

³ Official Journal of the EU N° C 378/02 of 13/11/2015

⁴ Results (historical data) of long-term aging (10 years exposure to natural weathering) available

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 of "Aestuver Tape DSB" unlaminated or with self-adhesive tape	Class E in accordance with EN 13501-1 ⁵

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 ⁶

The detailed chemical composition of the intumescent construction product "Aestuver Tape DSB" 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 requirements and for the achievement of the performance. 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 X – product intended for outdoor use at conditions exposed to weathering (rain, UV, frost) - in accordance with EAD 350005-00-1104.

Result:

The intumescent construction product "Aestuver Tape DSB" can be used under conditions of outdoor use 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 climatic use conditions of type Y₁, Y₂, Z₁ and Z₂ (see EAD clause 1.2.2).

Additionally the product "Aestuver Tape DSB" was tested under the following specific durability conditions:

- 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 constant 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 these exposures.

⁵ EN 13501-1:2010 Fire classification of construction products and building elements, Part 1 Classification using test data from reaction to fire tests and A1:2009

⁶ 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)

English translation prepared by DIBt

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) according to the following table:

Product	Intended use	characteristic	System
"Aestuver Tape DSB" unlaminated or with self-adhesive tape	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 N° 350005-00-1104

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.

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beglaubigt:
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ANNEX 1

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

"Aestuver Tape DSB"

characteristic	Values and tolerances or range ⁷
Nominal thickness	0,5 to 2,0 mm; tolerance $\pm 0,1$ mm
Expansion ratio	thickness 0,5 mm: 35,0 to 54,0 thickness 2,0 mm: 18,0 to 40,0
Expansion pressure	0,65 N/mm ² to 2,00 N/mm ²

The chemical reaction in case of fire starts at ca. 200 °C.

⁷ The test methods and details of testing see manufacturer's control plan