

Public-law institution jointly founded by the federal states and the Federation

**European Technical Assessment Body  
for construction products**



## European Technical Assessment

**ETA-25/0361  
of 15 May 2025**

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

Stacon Part BSS

Product family  
to which the construction product belongs

Linear joint and gap seals

Manufacturer

Schöck Bauteile GmbH  
Schöckstraße 1  
76534 Baden-Baden  
GERMANY

Manufacturing plant

Werk A<sup>1</sup>

This European Technical Assessment contains

13 pages including 8 annexes 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

350141-00-1106

<sup>1</sup> Adress known to DIBt

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This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No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 (ETA) is the construction product "Stacon Part BSS", which is an intumescent, compressible strip for forming linear joint and gap seals.

The building product "Stacon Part BSS" consists of a middle layer of compressible melamine resin foam<sup>2</sup> with two layers of an intumescent material<sup>3</sup> on both sides. The layers are connected with double-sided, polyacrylate-based adhesive tape<sup>2</sup> (thickness ca. 0.1 or 0.16 mm). The kit for the linear joint and gap seal includes at least the construction product and the installation guide.

The chemical composition of the construction products, the dimensions of the variants and the characteristics of the components are listed in annex A.

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

The compressible strip "Stacon Part BSS" will be assessed in accordance with the European Assessment Document (EAD) 350141-00-1106<sup>4</sup>.

The compressible strip "Stacon Part BSS" is intended to seal vertical and horizontal linear joints (linear butt joints) with a width from 20 mm to 50 mm (see annex A) between massive, fire-resistant walls and floors with a fire-separating function in case of fire.

The wall and floor must consist of aerated concrete, normal concrete, hollow concrete blocks, or masonry (raw density  $\geq 650 \text{ kg/m}^3$ ) and/or cross-laminated timber (for walls: raw density  $\geq 402.5 \text{ kg/m}^3$ , for ceilings: raw density  $\geq 446.4 \text{ kg/m}^3$ )

Wall joints formed using "Stacon Part BSS" must not exceed a lateral expansion of 20 mm. Ceiling joints formed using "Stacon Part BSS" must not exceed a lateral expansion of 20 mm and/or shearing of up to 25 mm.

A detailed list of wall and ceiling materials and use cases is given in annex B.

The compressible strip "Stacon Part BSS" is intended to maintain or reinstate the fire resistance performance of building components with a fire-separating function where they are interrupted or separated by joints. The incorporated product "Stacon Part BSS" is not intended for load transmission.

The fire resistance of the compressible strip "Stacon Part BSS" for different types of incorporation between construction elements is given in Annex C.

The performances given in section 3 are only valid if the compressible strip "Stacon Part BSS" is used in compliance with

- the specifications and conditions given in Annex B and
- the manufacturer's instructions.

<sup>2</sup> Type, manufacturer and characteristics are deposited with DIBt.

<sup>3</sup> Chemical composition, type and characteristics are deposited with DIBt.

<sup>4</sup> Official Journal of the EU N° C 417/07 of 16. November 2018; p. 24, EAD N° 350141-00-1106 „Linear joint and gap seals“

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of "Stacon Part BSS" 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.

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

#### 3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class C-s1, d0 in accordance with EN 13501-1
Resistance to fire	Classes EI in accordance with EN 13501-2 see Annex C

#### 3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content of dangerous substances	no dangerous substances <sup>5</sup>

The chemical composition of the components of the compressible strip "Stacon Part BSS" was assessed by DIBt and is deposited with the DIBt. The composition of the product has to conform to the deposition.

#### 3.3 Safety and accessibility in use (BWR 4)

No performance determined

#### 3.4 Protection against noise (BWR 5)

Essential characteristic	Performance
weighted sound reduction index of joints, according to EN ISO 717-1	
joint width 40 mm, joint depth 60 mm <sup>6</sup>	R <sub>S,w</sub> = 20 dB
joint width 20 mm, joint depth 60 mm <sup>6</sup>	R <sub>S,w</sub> = 37 dB

#### 3.5 Energy economy and heat retention (BWR 6)

No performance determined

#### 3.6 Sustainable use of natural resources (BWR 7)

No performance determined

#### 3.7 General aspects

The verification of durability is part of testing the essential characteristics.

In accordance with EAD 350141-00-1106<sup>4</sup>, section 2.1, the compressible strip "Stacon Part BSS" can be used under the following final use conditions, without any essential change in the properties relevant for the fire protective effect and the resulting performance:

Type Z<sub>2</sub>: indoor use at a relative humidity lower than 85 % RH, but no temperatures below 0 °C (dry, frost-protected).

The durability under indoor conditions for circa 10 years is only ensured if the specifications of intended use are considered according to annex B and the manufacturer's instructions given in section 5.

<sup>5</sup> In accordance with the Regulation (EC) N° 1272/2008 of the European Parliament and the Council of 16 December 2008 (published in the Official Journal of the EU N° L353 of 31 December 2008, p 1)

<sup>6</sup> Stacon Part BSS 20/40 (see Annex A) was used for joint execution.

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

In accordance with EAD N° 350141-00-1106<sup>4</sup> the applicable European legal act is: 1999/454/EC<sup>7</sup>. The system of assessment and verification of constancy of performance (AVCP) (see annex V and article 65 Paragraph 2 to Regulation (EU) N° 305/2011) is: **System 1** as given in the following table:

Product	intended use	Level(s) or class(es)	AVCP-System
"Stacon Part BSS"	sealing of joints between fire-resistant separating building elements in case of fire	all	1

**5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD (EAD 350141-00-1106)**

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

In accordance with this ETA the manufacturer shall provide the declaration of performance and installation instructions containing at least information on type, properties (minimum thickness, minimum density) and fire resistance of the building elements with a fire-separating function in which the compressible strip "Stacon Part BSS" may be installed and a description or graphic presentation of the proper installation.

Issued in Berlin on 15 May 2025 by Deutsches Institut für Bautechnik

Johanna Held  
Head of Section

*beglaubigt:*  
Haberstroh

<sup>7</sup> Decision of the Commission N° 1999/454/EC of 22 June 1999 (OJ L 178/52 of 14/07/99, p. 3), as amended by Decision of the Commission N° 2001/596/EC of 8 January 2001 (OJ L 209/33 of 2/8/2001, p. 2)

## Description of the construction product

### 1. Properties of the variants

**Table A 1:** Dimensions of the variants

	"Stacon Part BSS 20/40"	"Stacon Part BSS 30/50"
dimensions	1000 mm x 48 mm x 60 mm	1000 mm x 58 mm x 60 mm
thickness of the intumescent layer	4.8 mm	4.8 mm
joint width	20 mm – 40 mm	30 mm – 50 mm

The dimensions are given as follows: length x width x depth.

### 2. Properties relevant for the fire protective effects of the intumescent component "Flaton-flex EN<sup>1</sup>"

**Table A 2:** Properties of "Flaton-flex EN"

characteristic	value and tolerance	test methods and test conditions
nominal thickness	2 mm - 2.5 mm	see control plan
mass per unit area	1.70 kg/m <sup>2</sup> – 2.4 kg/m <sup>2</sup>	
loss of weight at a higher temperature <sup>2</sup>	59 % ± 5 %	
expansion ratio <sup>2</sup>	14.0 – 18.5	
expansion pressure <sup>2</sup>	1.6 N/mm <sup>2</sup> - 2.6 N/mm <sup>2</sup>	
reaction to fire	class E	

### 3. Double-sided self-adhesive tape

Polyacrylate-dispersion based adhesive on a layer of paper mat; thickness: 0.16 - 0.18 mm or polyacrylate-dispersion based adhesive on a PES/PVA mesh, thickness: ca. 0.1 mm.

### 4. Foam strip "Noiseflex MH grey"

Flexible, open-cell foam of melamine resin, colour: grey

**Table A 3:** Characteristics of "Noiseflex MH grau"

characteristic	value and tolerance	test methods and test conditions
raw density	9 ± 1.5 kg/m <sup>3</sup>	EN ISO 845
tensile strength	> 120 kPa	EN ISO 1798

<sup>1</sup> Approval documents are deposited with DIBt.

<sup>2</sup> Details of test methods and conditions are deposited with DIBt.

Stacon Part BSS

**Product description**

**Annex A**

## Fire-separating elements – construction with wood and hybrid construction

The construction product "Stacon Part BSS" is intended to seal linear joints between massive walls and/or ceilings made of cross-laminated timber and aerated concrete.

The configurations of cross-laminated timber/cross-laminated timber and cross-laminated timber/aerated concrete have been tested.

In this context, fire-separating components made of cross-laminated timber must consist of the "KLH-CLT" type and, in accordance with ETA-06/0128, must have a raw density of  $\geq 402.5 \text{ kg/m}^3$  and a thickness  $\geq 120 \text{ mm}$  for solid vertical load-bearing structures, and a raw density  $\geq 446.4 \text{ kg/m}^3$  and a thickness of  $\geq 160 \text{ mm}$  for solid horizontal load-bearing structures.

Additionally, normal concrete, hollow concrete blocks, or masonry may be used in place of aerated concrete. Fire-separating components made of aerated concrete, normal concrete, hollow concrete blocks, or masonry must have a thickness  $\geq 150 \text{ mm}$  and a raw density  $\geq 650 \text{ kg/m}^3$ .

The fire-separating components themselves must fulfil the required fire resistance class according to EN 13501-2.

The compressible strip "Stacon Part BSS" may be used in the following use cases:

- in horizontal joints between fire-resistant ceilings with a fire-separating function (**Figure B 1**)
- in horizontal and vertical joints between fire-resistant walls with a fire-separating function (**Figure B 2**)
- in horizontal joints between fire-resistant walls and ceilings with a fire-separating function (**Figure B 3**)

The variant "Stacon Part BSS 20/40" can be used to seal linear joints with a joint width (b) of 20 mm up to a maximum of 40 mm.

The gap fill depth must be 60 mm. The specifications for resistance to fire in wood and hybrid construction are only valid for the central placement of the compressible strip in the joint (see **Figures B 1 to B 3**).

For wall joints, the lateral expansion must not exceed 20 mm (see **Figure B 2**). For ceiling joints and joints between ceilings and walls, the lateral expansion along with an additional shear displacement must not exceed 20 mm (lateral expansion) and/or 25 mm (shearing), respectively (see **Figures B 1 and B 3**).

Stacon Part BSS	<b>Annex B 1</b>
<b>Intended use</b> Information for implementation with regard for the determined resistance to fire – construction elements	

### Fire-separating elements – solid construction

The construction product "Stacon Part BSS" is intended to seal linear joints between massive walls and/or ceilings made of aerated concrete, normal concrete, hollow concrete blocks, or masonry.

Fire-separating components made of aerated concrete, normal concrete, hollow concrete blocks, or masonry must have a thickness  $\geq 150$  mm and a raw density  $\geq 650$  kg/m<sup>3</sup>. The fire-separating components themselves must fulfil the required fire resistance class according to EN 13501-2.

The compressible strip "Stacon Part BSS" may be used in the following use cases:

- in horizontal joints between fire-resistant ceilings with a fire-separating function (**Figure B 1**)
- in horizontal and vertical joints between fire-resistant walls with a fire-separating function (**Figure B 2**)
- in horizontal joints between fire-resistant walls and ceilings with a fire-separating function (**Figure B 3**)

The variant "Stacon Part BSS 20/40" can be used to seal linear joints with a joint width (b) of 20 mm up to a maximum of 40 mm. The variant "Stacon Part BSS 30/50" can be used to seal linear joints with a joint width (b) of 30 mm up to a maximum of 50 mm.

The gap fill depth must be 60 mm. The specifications for resistance to fire in solid construction are only valid for the placement of the compressible strip set back at least 5 mm from the edge of the gap into the joint<sup>3</sup> (see **Figures B1 - B3**).

For wall joints, the lateral expansion must not exceed 20 mm (see **Figure B 2**). For ceiling joints and joints between ceilings and walls, the lateral expansion along with an additional shear displacement must not exceed 20 mm (lateral expansion) and/or 25 mm (shearing), respectively (see **Figures B 1 and B 3**).

<sup>3</sup> The central placement of the compressible strip in the joint is permitted.

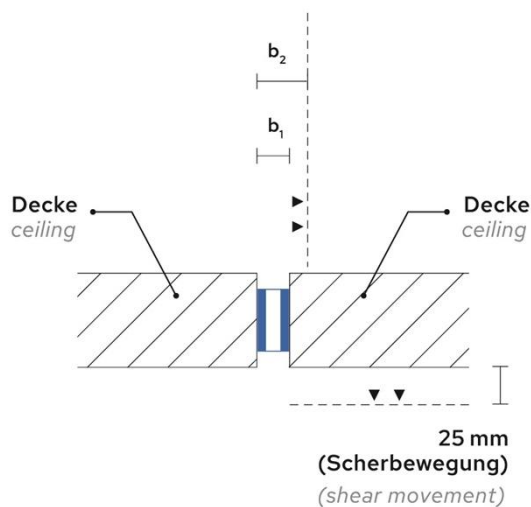
Stacon Part BSS

#### Intended use

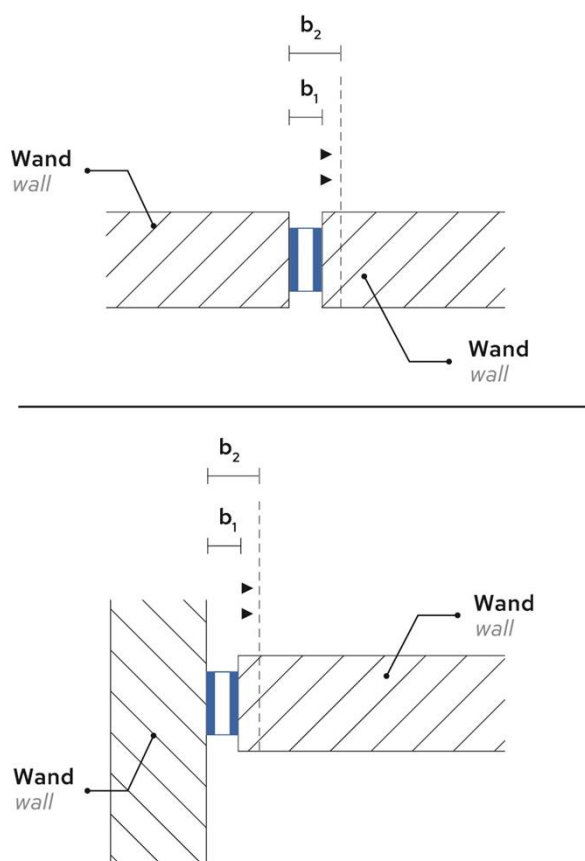
Information for implementation with regard for the determined resistance to fire  
– construction elements

**Annex B 2**





**Figure B 1:** Horizontal ceiling joint construction. The maximum lateral expansion ( $b_1$  to  $b_2$ ) is 20 mm. The maximum skew of the parts (shearing distance) is 25 mm.



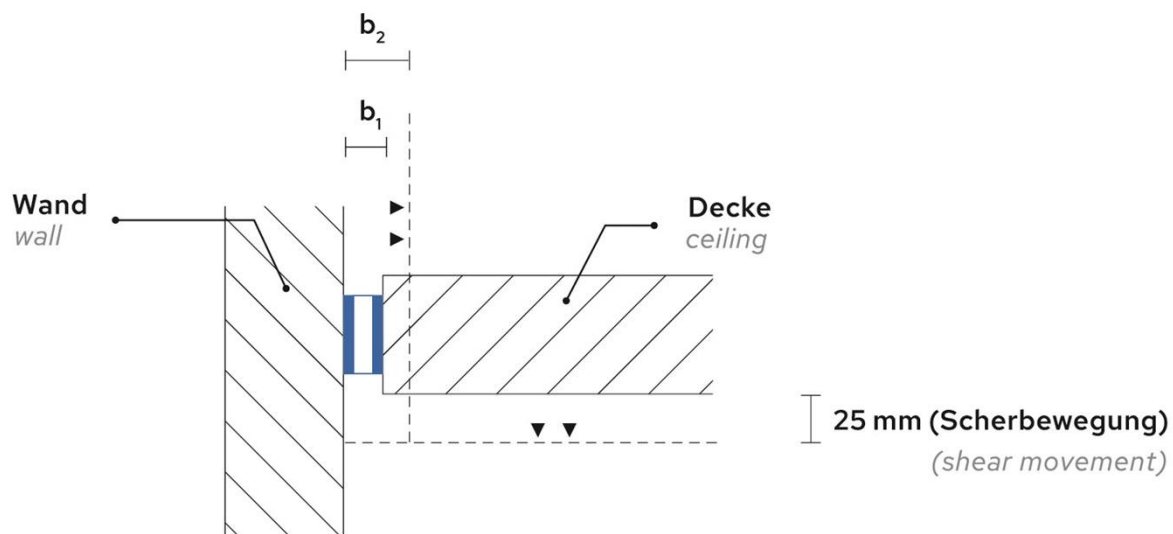
**Figure B 2:** Vertical wall joint construction. The maximum lateral expansion. ( $b_1$  to  $b_2$ ) is 20 mm.

Staconn Part BSS

**Intended use**

Information for implementation with regard for the determined resistance to fire  
– construction elements

**Annex B 3**



**Figure B 3:** Horizontal ceiling-to-wall joint construction. The maximum lateral expansion ( $b_1$  to  $b_2$ ) is 20 mm. The maximum skew of the parts (shearing distance) is 25 mm.

Stacon Part BSS

**Intended use**

Information for implementation with regard for the determined resistance to fire  
– construction elements

**Annex B 4**

## Classification of the resistance to fire – construction with wood and hybrid construction

**Table C 1:** tested versions of ceiling and wall joints using the compressible strip "Stacon Part BSS"

Implementation		Classification according to EN 13501-2 <sup>4</sup>
horizontal ceiling joints		
"Stacon Part BSS 20/40"	cross-laminated timber to aerated concrete	EI 90-H-M136-F-W 20
	max. 20 mm lateral expansion, 25 mm shearing	
"Stacon Part BSS 20/40"	cross-laminated timber to cross-laminated timber	EI 90-H-M136-F-W 20
	max. 20 mm lateral expansion, 25 mm shearing	
vertical wall joints		
"Stacon Part BSS 20/40"	cross-laminated timber to aerated concrete	EI 90-V-M100-F-W 20
	max. 20 mm lateral expansion	
"Stacon Part BSS 20/40"	cross-laminated timber to cross-laminated timber	EI 90-V-M100-F-W 20
	max. 20 mm lateral expansion	

<sup>4</sup> The shear strain is given in accordance with DIN EN 1366-4, section B.2.3; e.g. M136 equates to 136% with the share of lateral expansion being 100% and the share of the shearing being 36%

Stacon Part BSS

### Intended use

Data for assessed resistance to fire performance with regards to implementation

**Annex C 1**

## Classification of the resistance to fire – solid construction

**Table C 2:** tested versions of ceiling and wall joints using the compressible strip "Stacon Part BSS"

Implementation		Classification according to EN 13501-2 <sup>4</sup>
horizontal ceiling joints		
"Stacon Part BSS 20/40"	aerated concrete to aerated concrete	EI 120-H-M136-F-W 20
	max. 20 mm lateral expansion, 25 mm shearing	
"Stacon Part BSS 30/50"	aerated concrete to aerated concrete	EI 120-H-M86-F-W 30
	max. 20 mm lateral expansion, 25 mm shearing	
vertical wall joints		
"Stacon Part BSS 20/40"	aerated concrete to aerated concrete	EI 120-V-M100-F-W 20
	max. 20 mm lateral expansion	
"Stacon Part BSS 30/50"	aerated concrete to aerated concrete	EI 120-V-M66-F-W 30
	max. 20 mm lateral expansion	

Stacon Part BSS

### Intended use

Data for assessed resistance to fire performance with regards to implementation

**Annex C 2**

## List of References

EN 13501-1:2019-05	Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests
EN 13501-2:2023-05	Fire classification of construction products and building elements – Part 2: Classification using data from resistance tests, excluding ventilation services
EN ISO 845:2009-6	Cellular plastics and rubbers – Determination of apparent density
EN ISO 1798:2008-2	Flexible cellular polymeric materials – Determination of tensile strength and elongation at break
EN ISO 717-1:2020-12	Acoustics – Rating of sound insulation in buildings and of building elements – Part 1: Airborne sound insulation
EN 1366-4:2021-05	Fire resistance tests for service installations – Part 4: Linear joint seals;

Stacon Part BSS

List of references

Annex D