Deutsches Institut für Bautechnik

Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

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European Technical Assessment

ETA-13/0217 of 12 May 2014

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	joint filling rope "SG 300"
Product family to which the construction product belongs	Linear Joint and Gap Seals
Manufacturer	Rex Industrie-Produkte Graf von Rex GmbH Großaltdorfer Straße 59 74541 Vellberg DEUTSCHLAND
Manufacturing plant	1
This European Technical Assessment contains	9 pages including 4 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	Guideline for European technical approval of "Fire Stopping and Fire Sealing Products", ETAG 026 Part 3: "Linear Joint and Gap Seals", August 2011, used as European Assessment Document (EAD) according to Article 66 Paragraph 3 of Regulation (EU) No 305/2011.
This version replaces	ETA-13/0217 issued on 18 March 2013

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Specific part

1 Technical description of the product

SG 300 is a flexible and elastic joint filling rope made of mineral fibres with a braid of textile glass yarn.

SG 300 is produced in seven different diameters.

For further product properties, see Annex A.

Details of the material specifications and the manufacturing process of SG 300 are deposited with the Deutsches Institut für Bautechnik.

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

SG 300 is used for sealing horizontal and vertical linear joints (structural joints as stepped joints and linear butt joints) with or without shear stress between fire-resistant separating rigid walls and floors.

SG 300 is intended to maintain or reinstate the fire resistance performance of separating building elements where they are interrupted or separated by joints.

The maximum permitted joint width is 55 mm.

The maximum lateral stretching capability of SG 300 is 7.4 %.

SG 300 is not intended for load transmission.

The performances given in section 3 are only valid if the joint filling rope is used in compliance with

- the specifications and conditions given in Annex B and
- the manufacturer's instructions according to section 5.

The verifications and assessment methods on which this European Technical Assessment is based lead the assumption of working life of the joint filling rope SG 300 of 25 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 product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

Not applicable

3.2 Safety in case of fire (BWR 2)

3.2.1 Reaction to fire

SG 300 is classified A1 in accordance with EN 13501-1.

3.2.2 Fire resistance

The fire resistance has been classified in accordance with EN 13501-2, as given in Annex B.

3.3 Hygiene, health and the environment (BWR 3)

3.3.1 Content and/or emission of dangerous substances

The product SG 300 does not contain dangerous substances listed in EOTA TR 034 (edition February 2012).

3.4 Safety in use (BWR 4)

No performance determined.

3.5 Protection against noise (BWR 5)

No performance determined.

3.6 Energy economy and heat retention (BWR 6)

No performance determined.

3.7 Sustainable use of natural resources (BWR 7)

For the sustainable use of natural resources no performance was investigated for this product.

3.8 General aspects

SG 300 meets the following use categories according to ETAG 026-3:

Type Y_1: intended for use at temperatures below 0 °C with exposure to UV but no exposure to rain.

Type Y_2: Products for linear joint seals intended for use at temperatures below 0 °C, but with no exposure to rain nor UV.

Type Z_1: intended for use in internal conditions with humidity equal to or higher than 85 % RH, excluding temperatures below 0 °C.

Type Z_2: intended for use in internal conditions with humidity lower than 85 % RH, excluding temperatures below 0 °C.

The verification of durability is part of testing the essential characteristics. Durability is only ensured if the specifications of intended use according to Annex B and the manufacturer's instructions according to section 5 are taken into account.

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

According to Decision of the Commission of 22 June 1999 (1999/454/EC) (OJ L 178/52 of 14/07/99, p. 3), as amended by Decision of the Commission of 8 January 2001 (2001/596/EC) (OJ L 209/33 of 2/8/2001, p. 2), the system of assessment and verification of constancy of performance (see Annex V and Article 65 Paragraph 2 to Regulation (EU) No 305/2011) given in the following table has to be applied.

Product(s)	**Intended use(s)**	**Level(s) or class(es)** *(resistance to fire)*	**System** of assessment and verification of constancy of performance
joint filling rope	for sealing joints between fire-resistant separating building elements	any	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 with Deutsches Institut für Bautechnik.

The manufacturer shall provide installation instructions on every construction product according to this ETA containing at least the following information:

- type, properties (minimum thickness, density) and fire resistance of the building elements in which the joint filling rope may be installed
- description or graphic presentation of the proper installation (number of layers and arrangement of the joint filling rope depending on the type of the building element, the intended fire resistance and the width of the joints).

The manufacturer shall also provide instructions on processing, packaging, transport, storage and use, maintenance and repair of the construction product.

Issued in Berlin on 12 May 2014 by Deutsches Institut für Bautechnik

Dipl.-Ing. G. Breitschaft
Präsident

beglaubigt:
von Hoerschelmann

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Product description

Table A.1 shows the dimensions and the nominal bulk density of the joint filling rope SG 300.

Table A.1

nominal diameter* [mm]	joint width b [mm]	bulk density [kg/m³]
12	≤ 10	≥ 440
15	≤ 12	≥ 288
20	≤ 17	≥ 224
30	≤ 27	≥ 208
40	≤ 37	≥ 196
50	≤ 47	≥ 224
60	≤ 55	≥ 200

* nominal diameter depending on the joint width to be sealed

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Separating building elements

The joint filling rope SG 300 is used for sealing linear joints between the following separating building elements:

- rigid walls and floors
  - aerated concrete, concrete, reinforced concrete or masonry with a minimum density of 700 kg/m³ (see Table B.2)
  - concrete, reinforced concrete or masonry with a minimum density 2400 kg/m³ ± 20 % (see Table B.3)

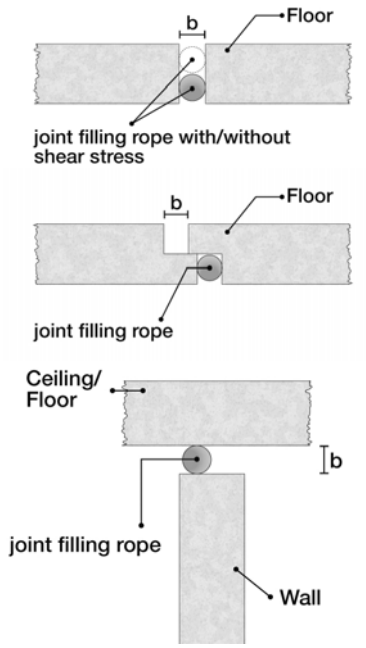
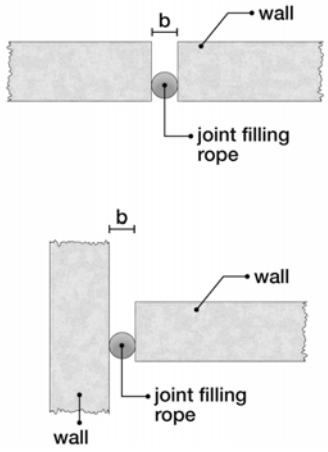
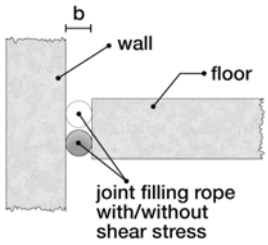
The minimum thickness of the separating building elements shall be 150 mm (see Table B.2 and B.3).

The separating building elements shall be classified according to EN 13501-2 for the required fire resistance period.

According to table B.1, the joint filling rope SG 300 is used

- in horizontal joints between fire-resistant separating floors or between walls and floors (A)
- in vertical joints between fire-resistant separating walls (B)
- in horizontal joints between fire-resistant separating floors and walls (C).

Table B.1

Application (A)	Application (B)	Application (C)
		

For the number of layers and the arrangement of the joint filling rope, see Table B.2 and B.3.

joint filling rope "SG 300"	**Annex B 1**
Intended Use Specification of the intended use relating to the verified fire resistance - Building elements -	

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Design and arrangement of the joint filling rope

The joint filling ropes shall be arranged overlapped. For joints

- with a single-layer arrangement the joint filling ropes shall overlap a minimum of 100 mm,
- with a multi-layer arrangement the joints of the joint filling rope shall be arranged 500 mm shifted to each other.

For joints with vertical shear stress, the joint filling ropes shall be arranged with a minimum distance of 25 mm to the outer edge of the building element. For arrangement and number of layers of the joint filling rope, see Table B.2 and B.3.

Tabelle B.2

Overview of the fire-resistant designs for the arrangement in rigid wall constructions and rigid floor constructions with a minimum thickness of 150 mm and a minimum density of 700 kg/m3				
application	joint width [mm]	SG 300 number of layers and arrangement		classification fire resistance
(A) (B)	10 to 55	1	any arrangement within the joint	EI 90–V–X–F–W 10 to 55 EI 90–H–X–F–W 10 to 55
(A) (B)	55	1		EI 120–V–X–F–W 55 EI 120–H–X–F–W 55

Table B.3

Overview of the fire-resistant designs for the arrangement in rigid wall constructions and rigid floor constructions with a minimum thickness of 150 mm and a minimum density of 2400 kg/m3 ± 20 %				
application	joint width [mm]	SG 300 number of layers and arrangement		classification fire resistance
(A) (C)	10 to 50	2	One strip on each side, minimum distance 25 mm to the outer edge of the building element	EI 90–H–M 65–F–W 10 to 50
(A) (B)	10 to 55	2	layers arranged close together, any arrangement within the joint	EI 120–V–X–F–W 10 to 55 EI 120–H–X–F–W 10 to 55
(A) (B)	10 to 27	4		EI 180–V–X–F–W 10 to 55 EI 180–H–X–F–W 10 to 55
	37 to 55	3		

* The maximum shear stress of horizontal joints is restricted to Δh = 100 mm compared to the installed condition.

For the choice of the suitable joint filling rope (nominal diameter depending on the joint width to be sealed) see Table A.1.

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List of reference documents

ETAG No 026-1 (Edition January 2008)
Guideline for European Technical Approval for Fire Stopping and Fire Sealing Products - Part 1: General

ETAG No 026-3 (Progress file August 2011)
Guideline for European Technical Approval for Fire Stopping and Fire Sealing Products - Part 3: Linear joint and gap seals

EN 13501-1:2010-01	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
EN 13501-2:2010-02	Fire classification of construction products and building elements - Part 2: Classification using data from resistance tests, excluding ventilation services
EN ISO 1182:2010-10	Reaction to fire tests for products – Non-combustibility test (ISO 1182:2010)
EN ISO 1716	Reaction to fire tests for products – Determination of the gross heat of combustion (calorific value) (ISO 1716:2010)
EN 1363-1:2012-10	Fire resistance tests – Part 1: General requirements
EN 1366-4:2010-08	Fire resistance tests for service installations – Part 4: Linear joint seals