

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments



## European Technical Assessment

**ETA-14/0059**  
**of 17 March 2015**

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

Joint filling rope SG 300 N

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

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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", Edition August 2011,  
used as European Assessment Document (EAD)  
according to Article 66 Paragraph 3 of Regulation (EU)  
No 305/2011.

This version replaces

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## Specific part

### 1 Technical description of the product

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

SG 300 N 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 N are deposited with the Deutsches Institut für Bautechnik.

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

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

SG 300 N 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 N is 7.4 %.

SG 300 N 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 N 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 N 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

SG 300 N consists of man-made mineral fibres which meet the requirements in accordance with TR 034, methods I and II.

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**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 N meets the following use categories according to ETAG 026-3:

Type Y<sub>1</sub>: intended for use at temperatures below 0 °C with exposure to UV but no exposure to rain.

Type Y<sub>2</sub>: Products for linear joint seals intended for use at temperatures below 0 °C, but with no exposure to rain nor UV.

Type Z<sub>1</sub>: intended for use in internal conditions with humidity equal to or higher than 85 % RH, excluding temperatures below 0 °C.

Type Z<sub>2</sub>: 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 applies.

Product(s)	Intended use(s)	Level(s) or class(es) ( <i>resistance to fire</i> )	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 SG 300 N may be installed

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- 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 17 March 2015 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe  
Head of Department

*beglaubigt:*  
von Hoerschelmann

### Product description

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

Table A.1

nominal diameter* [mm]	joint width b [mm]	bulk density [kg/m <sup>3</sup> ]
12	≤ 10	≥ 700
15	≤ 12	≥ 490
20	≤ 17	≥ 440
30	≤ 27	≥ 260
40	≤ 37	≥ 300
50	≤ 47	≥ 240
60	≤ 55	≥ 325

\* nominal diameter depending on the joint width to be sealed

Joint filling rope SG 300 N

**Product description**

**Annex A**

**Separating building elements**

The joint filling rope SG 300 N 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/m<sup>3</sup>
  - concrete, reinforced concrete or masonry with a minimum density 2400 kg/m<sup>3</sup> ± 20 %

The minimum thickness of the separating building elements shall be 100 mm or 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.

The joint filling rope SG 300 N is according to table B.1 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)
<p>Diagrams for Application (A) showing joint filling rope in horizontal joints between floors, walls and floors, and ceiling/floor and wall.</p>	<p>Diagrams for Application (B) showing joint filling rope in vertical joints between walls.</p>	<p>Diagram for Application (C) showing joint filling rope in horizontal joints between floors and walls.</p>

For the number of layers and the arrangement of the joint filling rope

- for joints without shear stress, see Table B.2.
- for joints with vertical shear stress, see Table B.3.

Joint filling rope SG 300 N

**Intended Use**

Specification of the intended use relating to the verified fire resistance  
- Building elements -

**Annex B 1**

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

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

Table B.2 (joints without shear stress)

Overview of the fire-resistant designs for the arrangement in rigid wall constructions with a minimum thickness of 100 mm and rigid floor constructions with a minimum thickness of 150 mm each with a minimum density of 700 kg/m <sup>3</sup>				
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
	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
	10 to 27	4		EI 180-V-X-F-W 10 to 55
	27 to 55	3		EI 180-H-X-F-W 10 to 55

Table B.3 (joints with vertical shear stress)

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/m <sup>3</sup> ± 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 bis 50

- The maximum shear stress of horizontal joints is restricted to  $\Delta h = 100$  mm compared to the installed condition.
- 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.

Joint filling rope SG 300 N

#### Intended Use

Specification of the intended use relating to the verified fire resistance  
- Design and arrangement -

**Annex B 2**

**List of reference documents**

ETAG No 026-1 (Edition September 2012)  
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 Fire classification of construction products and building elements – Part 1:  
Classification using data from reaction to fire tests

EN 13501-2 Fire classification of construction products and building elements – Part 2:  
Classification using data from resistance tests, excluding ventilation services

EN ISO 1182 Reaction to fire tests for products – Non-combustibility test

EN ISO 1716 Reaction to fire tests for products – Determination of the gross heat of  
combustion (calorific value)

EN 1363-1 Fire resistance tests – Part 1: General requirements

EN 1366-4 Fire resistance tests for service installations – Part 4: Linear joint seals

Joint filling rope SG 300 N	<b>Annex C</b>
<b>Reference documents</b>	