Deutsches Institut für Bautechnik

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

European Technical Assessment Body for construction products

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European Technical Assessment ETA-25/1260 of 23 January 2026

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	Flamro joint cord
Product family to which the construction product belongs	linear joint and gap seals
Manufacturer	FLAMRO Brandschutz-Systeme GmbH Am Sportplatz 2 56291 Leiningen GERMANY
Manufacturing plant	Werk VEL
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 Article 95(4) of Regulation (EU) No 2024/3110, on the basis of	EAD 350141-00-1106

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Specific Part

1 Technical description of the product

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

Flamro joint cord is produced in seven different diameters.

For further product properties, see Annex A.

Details of the material specifications and the manufacturing process of Flamro joint cord are deposited with the Deutsches Institut für Bautechnik.

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

Flamro joint cord is assessed in accordance with EAD Nr. 350141-00-1106[1].

Flamro joint cord 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.

Flamro joint cord 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 Flamro joint cord is 7.4 %.

Flamro joint cord 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
- 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 filler Flamro joint cord 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 Safety in case of fire (BWR 2)

essential characteristic	Performance
reaction to fire	class A1 in accordance with EN 13501-1
resistance to fire	classes in accordance with EN 13501-2 See Annex B

[1] OJ C 417/07 of 16. 11. 2018; p. 24, EAD Nr. 350141-00-1106 „Linear joint and gap seals“, Version September 2017

3.2 Hygiene, health and the environment (BWR 3)

Content, emission and/or release of dangerous substances	
Substances classified as Carc. 1A/1B[a)]	The product does not contain these classified substances actively used.[b), c)]
Substances classified as Muta. 1A/1B[a)]	
Substances classified as Acute Tox. 1, 2, 3; Repr. 1A/1B; STOT SE 1 and STOT RE 1[a)]	
Release scenarios regarding BWR 3: IA1, IA2	

a) In accordance with Regulation (EC) No 1272/2008.

b) Assessment based on the detailed manufacturers' statements on dangerous substances.

c) Active use is the targeted use of substances to achieve specific product properties. Substances that are present as impurities and/or as a secondary component in the product are therefore not to be regarded as "actively used".

3.3 Safety and accessability in use (BWR 4)

No performance determined.

3.4 Protection against noise (BWR 5)

No performance determined.

3.5 Energy economy and heat retention (BWR 6)

No performance determined.

3.6 General aspects

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

In accordance with EAD Nr. 350141-00-1106[1], Flamro joint cord 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 Y_1: intended for use at temperatures below 0 °C with casual exposure to UV but no exposure to rain.

Type Y_2: intended for use at temperatures below 0 °C, but with no exposure to rain or UV radiation.

Type Z_1: intended for use in internal conditions with humidity equal to or higher than 85 % RH, excluding temperatures below 0 °C (no exposure to frost or changing frost-thaw but permanent or alternating condensation)

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

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, withreference to its legal base

In accordance with EAD Nr. EAD 350141-00-1106[1], the applicable European legal act is: 1999/454/EC[2].

The system of assessment and verification of constancy of performance (AVCP) (see annex V and article 65, paragraph 2 to Regulation (EU) Nr. 305/2011) is: **System 1** as given in the following table:

product	intended use	level(s) or class(es)	AVCP-System
Flamro joint cord	sealing of 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 23 January 2026 by Deutsches Institut für Bautechnik

Johanna Held
Head of section

beglaubigt:
Haberstroh

[2] Decision of the European commission N° 1999/454/EC of 22.06.1999 (OJ L 178/52 of 14.07.1999, p. 3), amended by decision N° 2001/596/EC of 08.01.2001 (OJ L 209/33 of 02.08.2001, p. 2).

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Product description

Table A.1 shows the dimensions and the nominal bulk density of Flamro joint cord.

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

Separating building elements

Flamro joint cord 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)

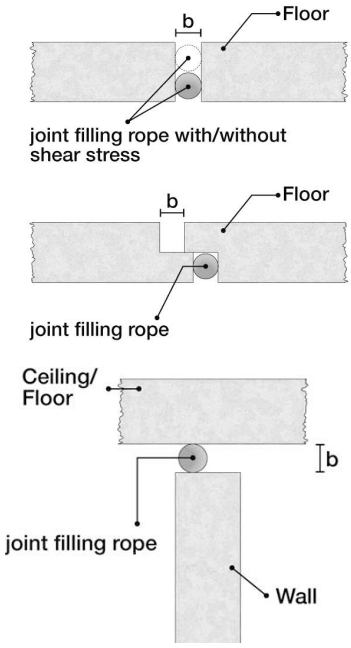
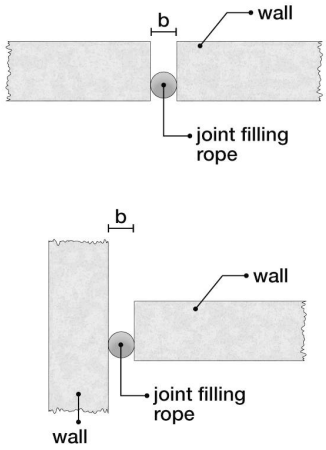
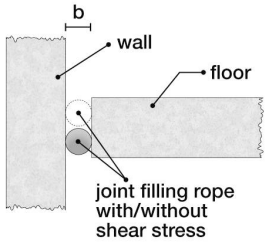
The minimum thickness of the separating building elements shall be 150 mm (see Table B.2 and B.3).

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

According to table B.1, Flamro joint cord 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.

Flamro joint cord	**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]	Flamro joint cord 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]	Flamro joint cord 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.

Flamro joint cord	**Annex B 2**
Intended Use Specification of the intended use relating to the verified fire resistance - Design and arrangement -	

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List of reference documents

EAD 350141-00-1106	Fire stopping and fire sealing products - Linear joint and gap seals, Version September 2017
EN 13501-1:2019-05	Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests
EN 13501-2:2023-12	Fire classification of construction products and building elements - Part 2: Classification using data from resistance tests, excluding ventilation services
EN ISO 1182:2020-06	Reaction to fire tests for products – non-combustibility test
EN ISO 1716:2018-10	Reaction to fire tests for products – Determination of the gross heat of combustion (calorific value)
EN 1363-1:2020-05	Fire resistance tests – Part 1: General requirements
EN 1366-4:2021-05	Fire resistance tests for service installations – Part 4: Linear joint seals

Flamro joint cord	**Annex C**
Reference documents	