AODISI

FIRE TECHNOLOGY

产品资料与销售咨询

PRODUCT DOCUMENTATION & SALES CONTACT

FLEXILODICE ® GLASS - Certificate / Approval ETA-16/0299-en

澳迪斯防火科技（廊坊）有限公司

Aodisi Fire Technology (Langfang) Co., Ltd.

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以上为销售联系信息，不替代安全数据表中的应急联系电话。
原始技术内容及制造商、检测机构和证书签发信息见后续资料页。

Sales contact only; emergency contacts in safety data sheets remain applicable.
Original technical, manufacturer and certification details follow.

Deutsches Institut für Bautechnik

Member of EOTA
www.eota.eu

Approval body for construction products and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and Laender Governments

Designated according to Article 29 of Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment)

European Technical Assessment

ETA-16/0299 of 13 September 2016

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	"FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM"
Product family to which the construction product belongs	Intumescent products for fire sealing and fire stopping purposes
Manufacturer	ODICE S.A. Z.A.E. "Les Dix Muids" Rue Lavoisier 59770 Marly FRANKREICH FRANCE
Manufacturing plant	1[1]
This European Technical Assessment contains	6 pages including 1 annex 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	European Assessment Document (EAD) 350005-00-1104

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[1] The address is 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 "FLEXILODICE" with or without a self-adhesive backing (SA)[2].

The European Technical Assessment is also valid for the modifications "FLEXILODICE SR" and "FLEXILODICE PM".

The product "FLEXILODICE" and its modifications "FLEXILODICE SR" and 'FLEXILODICE PM" are normally equipped with a self-adhesive backing (SA)[2] but the products are also available without the self-adhesive tape.

In case of fire, exposed to high temperatures, the intumescent products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" expand and generate 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 technical characteristics relevant for fire sealing and fire stopping effects of the construction product "FLEXILODICE" and its modifications FLEXILODICE SR" and "FLEXILODICE PM" are given in Annex 1.

The construction product "FLEXILODICE" is an intumescent product of dark grey colour. It is manufactured in form of flexible mats consisting essentially of intumescent substances and a binder. The construction product "FLEXILODICE" with (SA) or without a self-adhesive backing is processed at the factory to flexible strips, cuts or stamped pads.

The construction product "FLEXILODICE SR" with (SA) or without a self-adhesive backing is a flexible intumescent strip coextruded with a thermoplastic semi-rigid PVC layer.

The construction product "FLEXILODICE PM" with (SA) or without a self-adhesive backing is a flexible intumescent strip coextruded with PVC laminate for colour finish (standard colours: black, red, white and light brown)

The construction products "FLEXILODICE" and the modifications "FLEXILODICE SR" and "FLEXILODICE PM" are produced in nominal thicknesses between 1,2 mm up to 6,0 mm (each with a tolerance in thickness of + 0,2 mm/- 0,3 mm), several nominal widths (each with a tolerance in width of + 0,2 mm/- 0,5 mm) and with a standard lengths of 75 m,100 m, 120 m, 150 m. Other dimensions and special shapes (e.g. profiles) are possible on request. Cutting on site is possible.

The intumescent strips are delivered in coils, wrapped in cardboard boxes or as pre-cut strips and pads.

All described modifications of "FLEXILODICE" can be equipped on one side with a self-adhesive tape for fixing the product on the substrate or can be fastened mechanically or by using a suitable adhesive, which is not part of this ETA.

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

The construction product "FLEXILODICE" and its modifications "FLEXILODICE SR" and "FLEXILODICE PM" are assessed on the basis of EAD 350005-00-1104[3] as intumescent products for fire sealing and fire stopping purposes without a defined final use (IU 1).

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[2] Type, manufacturer and properties deposited with DIBt
[3] Official Journal of the EU N° C 378/02 of 13/11/2015

The construction products "FLEXILODICE" and its modifications "FLEXILODICE SR" and "FLEXILODICE PM" with or without a self-adhesive backing are intended to be used as essential components in construction products, construction elements, kits and special assemblies which need to meet requirements concerning the safety in case of fire.

In case of fire, the products delay 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 products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" are used in accordance with the instructions and the conditions stated in section 3.3.

The tests and assessment methods on which this European Technical Assessment is based, lead to the assumption of working life of the intumescent construction products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" of at least 10 years[4] in final use.

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 this assessment

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

Essential characteristic	Performance
Reaction to fire	Class E in accordance with EN 13501-1[5]

The intumescent construction products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" with and without self-adhesive backing meet the reaction to fire requirements of 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.

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content and release of dangerous substances	No dangerous substances

The detailed chemical composition of the intumescent construction product "FLEXILODICE" and the modifications "FLEXILODICE SR" and "FLEXILODICE PM" 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 and performance requirements. The following specific provisions shall be complied with to ensure the durability of the performance for the intended use.

The testing and the assessment of the product performance were carried out for environmental conditions of type Z_1 – product intended for use at internal conditions with high humidity (incl. temporary condensation) excluding temperatures below 0 °C - in accordance with EOTA Technical Report 024[6] (EOTA TR 024), section 4.2.

[4] results of long-term aging available (natural-aging at internal conditions for 10 years)

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

[6] EOTA TR 024 Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and products; amended version July 2009

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Result:

The intumescent construction products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" with or without self-adhesive backing can be used under use conditions of type Z_1, without having to fear essential changes in the relevant fire sealing and fire stopping properties and the resulting performance. This assessment includes the in-door use under use conditions of type Z_2 (dry, frost-protected use conditions).

Supplementary the product was tested under specific application conditions according to EOTA TR 024, section 4.3

- 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 intimate contact to plastics (PVC, PE).

The characteristics "expansion ratio" and "expansion pressure" did not change essentially due to the exposure.

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

In accordance with 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) system 1 applies for the assessment and verification of consistency of performance (AVCP).

See Annex V in conjunction with Article 65 (2) of the Regulation (EU) N° 305/2011 and the following table:

Product	Intended use	characteristic	System
"FLEXILODICE", "FLEXILODICE SR", "FLEXILODICE PM" with/without self-adhesive tape	Components effective in view of safety in case of fire (BWR 2) used in construction products, construction elements, kits and specific assemblies	reaction to fire, properties relevant for the fire sealing and fire stopping effect	1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

The technical details necessary for the implementation of the system for Assessment and Verification of Consistency of Performance are laid down in the confidential part of the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin on 13 September 2016 by Deutsches Institut für Bautechnik

Prof. Gunter Hoppe
Head of Department

beglaubigt:
Dr.-Ing. Dierke

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ANNEX 1

CHARACTERISTICS RELEVANT FOR THE FIRE SEALING AND FIRE STOPPING EFFECT OF THE CONSTRUCTION PRODUCTS "FLEXILODICE", "FLEXILODICE SR" AND "FLEXILODICE PM"

Characteristic	**Test method**[7]	**Range and tolerance**
"FLEXILODICE"		
Nominal thickness	EOTA TR 024[6], cl. 3.1.1	1,2 mm to 6,0 mm Tolerance in thickness: + 0,2 mm/- 0,3 mm (without self-adhesive backing)
Expansion ratio	EOTA TR 024[6], cl. 3.1.11 method 1 at 550°C for 30 minutes	Thickness 2 mm 9,0 to 13,0
Expansion pressure	EOTA TR 024[6], cl. 3.1.12 method 4 at 300°C	Thickness 2 mm 0,35 N/mm^2 to 0,65 N/mm^2
"FLEXILODICE SR" (SA)		
Expansion ratio	EOTA TR 024[6], cl. 3.1.11 method 1 at 550°C for 30 minutes	Thickness 2,3 mm 7,5 to 12,5
Expansion pressure	EOTA TR 024[6], cl. 3.1.12 method 4 at 300°C	Thickness 2,3 mm 0,30 N/mm^2 to 0,60 N/mm^2
"FLEXILODICE PM" (SA)		
Expansion ratio	EOTA TR 024[6], cl. 3.1.11 method 1 at 550°C for 30 minutes	Thickness 2 mm 6,0 to 10,0
Expansion pressure	EOTA TR 024[6], cl. 3.1.12 method 4 at 300°C	≥ 0,13 N/mm^2

The intumescent products "FLEXILODICE", "FLEXILODICE SR" and "FLEXILODICE PM" start to react chemically at approximately 180 °C.

[7] Details of the test method deposited with at DIBt

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