AODISI

FIRE TECHNOLOGY

产品资料与销售咨询

PRODUCT DOCUMENTATION & SALES CONTACT

KERAFIX ® Flexpan 200 series - Certificate / Approval ETA-15/0719-en

澳迪斯防火科技（廊坊）有限公司

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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.

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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

MEMBER OF EOTA

European Technical Assessment ETA-15/0719 of 2018/07/03

General Part

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:	Kerafix® Flexpan 200 NG-A Kerafix® Flexpan 200 NG-G and Kerafix® Flexpan 200 NG-SP
Product family to which the above construction product belongs:	Intumescent products for fire sealing and fire stopping purposes.
Manufacturer:	Rolf Kuhn GmbH Jägersgrund 10 57339 Erndtebrück / Germany Tel. + 49 2753 5945-0 Fax +49 2753 5945-52 Internet www.kuhn-brandschutz.com
Manufacturing plant:	Rolf Kuhn GmbH Jägersgrund 10 57339 Erndtebrück / Germany
This European Technical Assessment contains:	6 pages including 1 annex which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, on the basis of:	European Assessment Document (EAD) no. 350005-00-1104 “Intumescent products for fire sealing and fire stopping purposes”
This version replaces:	The ETA with the same number issued on 2015-12-02

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of product and intended use

Technical description of the product
Kerafix® Flexpan 200 NG-A, Kerafix® Flexpan 200 NG-G and Kerafix® Flexpan 200 NG-SP are intumescent materials which expand in case of fire.

The intumescent material Kerafix® Flexpan 200 NG-SP is a black strip and has a density range of 1290 kg/m³ ± 10 %.

The intumescent material Kerafix® Flexpan 200 NG-A is a black strip and has a density range of 1270 kg/m³ ± 10 %.

The intumescent material Kerafix® Flexpan 200 NG-G is a black strip and has a density range of 1250 kg/m³ ± 10 %.

The intumescent product may be equipped on one side with a self-adhesive tape and on the other side with a lamination.

The Kerafix® Flexpan 200 NG-Series can be installed in fire classified doors made of steel, aluminium, wood and special areas of application, for example lock case insulation and door hinges, facades, safety cabinets or control cabinets. In dry construction: Inspection openings, partition walls and ceiling constructions gaps.

Detailed specifications for identification and performance criteria relevant for fire safety with regard to the construction products are given in Annex 1.

Specification of the intended use in accordance with the applicable European Assessment Document
The construction products The Kerafix® Flexpan NG 200-Series are intended for use as components with a fire protection effect in products made from Steel, Copper, Aluminium, PVC, PE.

Table 1 – components of the verified penetration seals

Product type	Trade name
Intumescent	Kerafix® Flexpan 200 NG-SP
	Kerafix® Flexpan 200 NG-A
	Kerafix® Flexpan 200 NG-G

Detailed information and data on the verified penetration seals are given in Annex 1.

The performances given in Section 3 exclusively relate to this penetration seals (e.g. with respect to the design and arrangement of the components of the penetration seals and the type and position of the services, see annex 2, 3 and 4).

The verification and assessment methods on which this European Technical Assessment is based, lead to the assumption of a working life for the Kerafix® Flexpan NG 200-Series of at least 10 years.

The indications given on the working life cannot be interpreted as a guarantee given by the manufacturer, but are to be regarded only as a means for choosing the right product 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

Characteristic	Assessment of characteristic
3.2 Safety in case of fire (BWR 2)	
Reaction to fire	The Kerafix® Flexpan 200 NG-SP intumescent is classified as **Euroclass E** in accordance with EN 13501-1. The Kerafix® Flexpan 200 NG-A intumescent is classified as **Euroclass E** in accordance with EN 13501-1. The Kerafix® Flexpan 200 NG-G intumescent is classified as **Euroclass E** in accordance with EN 13501-1
Resistance to fire	The performance "Resistance to fire" shall be demonstrated separately for the final use if requested
3.3 Hygiene, health and the environment (BWR 3)	
Influence on air quality	The product does not contain/release dangerous substances specified in TR 034, dated March 2012.
3.7 Sustainable use of natural resources (BWR 7)	No Performance Determined

*) See additional information in section 3.9 – 3.12.

In addition to the specific clauses relating to dangerous substances contained in this European technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed European legislation and national laws, regulations and administrative provisions). In order to meet the provisions of the Construction Products Regulation, these requirements need also to be complied with, when and where they apply.

3.9 General aspects

The verification of durability is part of testing the essential characteristics. The intumescent construction product Kerafix® Flexpan 200 NG-A, Kerafix® Flexpan 200 NG-G and Kerafix® Flexpan 200 NG-SP may be used in end-use applications according to the provisions for category X without expecting significant changes of the characteristics relevant for fire sealing and fire stopping properties and the result performance.

The proof and its assessment concerning applicability under climate conditions were carried out in accordance with EOTA TR 024 clause 4.2.

Additionally, 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 permanent wetness (water-immersion and permanent condensation) 4 weeks
- Exposure to solvents such as Butylacetat, Butanol, solvent naphtha and fuel oil
- Subsequent overpainting (tested with coatings on the basis of acryl dispersion, alkyd resin, polyurethane acryl and epoxide resin)
- Exposure to intimate contact with plastics (PVC, PE)
- Exposure to intimate contact with metals (steel, copper aluminum)

After the exposure according to EOTA TR 024 no essential changes of the intumescent properties, expansion rate and expansion pressure could be detected.

4 Assessment and verification of constancy of performance (AVCP)

4.1 AVCP system

According to the decision 1999/454/EC of the European Commission, as amended by 2001/596/EC, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) is 1.

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

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark prior to CE marking.

Issued in Copenhagen on 2018-07-02 by

Thomas Bruun
Managing Director, ETA-Danmark

Annex 1
Product details and definitions

Product and performance of the **Kerafix® Flexpan 200 NG-SP**

Property	Method	Range
Thickness of strips	The determination has been carried out according to chapter 3.1.2 of EOTA TR No 024.	1.0 mm to 3.0 mm Tolerance: ± 10 %
Expansion ratio	The determination has been carried out according to chapter 3.1.11 of EOTA TR No 024. Tested at 450 °C for 30 minutes.	Nominal thickness 1.0 mm to 3.0 mm 7 to 17
Expansion pressure	The determination has been carried out according to chapter 3.1.12 of EOTA TR No 024. Tested at 300 °C.	Nominal thickness 1.0 mm to 3.0 mm No significant value

Product and performance of the **Kerafix® Flexpan 200 NG-A**

Property	Method	Range
Thickness of strips	The determination has been carried out according to chapter 3.1.2 of EOTA TR No 024.	1.0 mm to 3.0 mm Tolerance: ± 10 %
Expansion ratio	The determination has been carried out according to chapter 3.1.11 of EOTA TR No 024. Tested at 450 °C for 30 minutes.	Nominal thickness 1.0 mm 22 to 37 Nominal thickness 3.0 mm 18 to 33
Expansion pressure	The determination has been carried out according to chapter 3.1.12 of EOTA TR No 024. Tested at 300 °C.	Nominal thickness 1.0 mm 0.6 – 1.3 N/mm^2 Nominal thickness 3.0 mm 0.4 – 1.0 N/mm^2

Product and performance of the **Kerafix® Flexpan 200 NG-G**

Property	Method	Range
Thickness of strips	The determination has been carried out according to chapter 3.1.2 of EOTA TR No 024.	1.0 mm to 3.0 mm Tolerance: ± 10 %
Expansion ratio	The determination has been carried out according to chapter 3.1.11 of EOTA TR No 024. Tested at 450 °C for 30 minutes.	Nominal thickness 1.0 mm 15 to 27 Nominal thickness 3.0 mm 13 to 25
Expansion pressure	The determination has been carried out according to chapter 3.1.12 of EOTA TR No 024. Tested at 300 °C.	Nominal thickness 1.0 mm 0.5 – 1.0 N/mm^2 Nominal thickness 3.0 mm 0.3 – 0.8 N/mm^2