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European Technical Assessment

ETA 14/0379
 of 7/10/14

Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011:	
Trade name of the construction product	fischer FiAM Intumescent Acoustic Mastic
Product family to which the construction product belongs	Fire Stopping and Sealing Product , Linear Joint and Gap Seal
Manufacturer	Fischerwerke GmbH & Co Weinhalde 14-18 72178 Waldachtal Germany
Manufacturing plant(s)	E/091
This European Technical Assessment contains	16 pages including 3 Annex(es) which form an integral part of this assessment.
	Annex(es) A - C Contain(s) confidential information and is/are not included in the European Technical Assessment when that assessment is publicly available.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	ETAG 026, edition 2011, used as European Assessment Document (EAD)

General Comments

1. This European Technical Assessment is issued by Warrington Certification Limited on the basis of ETAG 026 Fire Protective Products Part 1: General June 2013, and Part 2: Fire Stopping and Fire Sealing Products Aug 2011, Used as European Assessment Document.
2. This European Technical Assessment is not to be transferred to manufacturers or agents of manufacturers other than those indicated on page 1, or manufacturing plants other than those indicated on page 1.



1 SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical Description of the Product

(Detailed information and data are given in Annexes)

- 1) fischer FiAM Intumescent Acoustic Mastic is an acrylic based sealant used to form linear gap seals where gaps are present in wall and floor constructions and linear joint seals where wall and floor constructions abut.
- 2) fischer FiAM Intumescent Acoustic Mastic has slight intumescent properties that cause it to swell on heating.
- 3) The fischer FiAM Intumescent Acoustic Mastic is supplied in liquid form contained within 310 ml & 380ml cartridges, 600ml foils or in 5, 10, 20 or 25 litre tubs. The sealant is gunned or trowelled into the aperture in or between the separating element/elements to a specified depth utilising various backing materials.
- 4) A Polyethylene backing rod is utilised as a depth gauge. Reaction to Fire classification 'F'

Internal use- ETAG 026-3 (used as European Assessment Document EAD) Type Z₁.

2 Specification Of The Intended Use In Accordance With The Relevant EAD

2.1 Intended Use

The intended use of system fischer FiAM Intumescent Acoustic Mastic is to reinstate the fire resistance performance of gaps in and joints between rigid and flexible wall constructions, gaps in and joints between rigid floor constructions.

- 1) The specific elements of construction that the system fischer FiAM Intumescent Acoustic Mastic may be used to provide a gap or joint seal in, are as follows:

Rigid Floors: The floor must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.

Rigid walls: The wall must have a minimum thickness of 100 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m³.

Flexible walls The wall must have a minimum thickness of 120 mm and comprise timber or steel studs lined on both faces with minimum 2 layers of 12.5 mm thick, 'Type F' Gypsum boards according to EN 520. In timber stud walls, no part of the penetration shall be closer than 100 mm to a stud, the cavity must be closed between the penetration seal and the stud and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1, is provided within the cavity between the penetration seal and the stud.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

- 2) The system fischer FiAM Intumescent Acoustic Mastic may be used to provide a linear joint or gap seal with specific supporting constructions and substrates (for details see Annex C).



- 3) The maximum permitted joint/gap width for system fischer FiAM Intumescent Acoustic Mastic is 50 mm.
- 4) The maximum movement capability of system fischer FiAM Intumescent Acoustic Mastic is $\leq 7.5\%$
- 5) The provisions made in this European Technical Assessment are based on an assumed working life of the fischer FiAM Intumescent Acoustic Mastic of 10 years, provided that the conditions laid down in sections 4.2/5.1/5.2 for the packaging/transport/storage/installation/use/repair are met. 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.

2.2 Use Category

Type Z₁: Intended for use in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV.



3 Performance Of The Product And References To The Methods Used For Its Assessment

The assessment of fitness for use has been made in accordance with EOTA ETAG 026 Part 3: 2011-08-08 (used as European Assessment Document, EAD)

ETAG Clause No.	ETA Clause No.	Characteristic	Assessment of characteristic
		Mechanical resistance and stability	Not relevant
		Safety in case of fire	See Clause 3.1
2.4.1	3.1	Reaction to fire	Class F according to EN 13501-1
2.4.2	3.2	Resistance to fire	See clause 3.2 & Annex C
		Hygiene, Health and the Environment	
2.4.3	3.3	Air permeability	See clause 3.3
2.4.4	3.4	Water permeability	No performance determined
2.4.5	3.5	Dangerous substances	See clause 3.5
		Safety in use	
2.4.6	3.6	Mechanical resistance and stability	No performance determined
2.4.7	3.7	Resistance to impact/movement	No performance determined
2.4.8	3.8	Adhesion	No performance determined
		Protection against noise	No performance determined
2.4.9	3.9	Airborne sound insulation	R_w (C_i;C_{tr})= 38(-2;-7)
		Energy, Economy and Heat Retention	
2.4.10	3.10	Thermal properties	No performance determined
2.4.11	3.11	Water vapour permeability	No performance determined
		General aspects relating to fitness for use	
2.4.12	3.12	Durability and serviceability	Z₁

3.1 Reaction to fire

System fischer FiAM Intumescent Acoustic Mastic is classified 'F' in accordance with EN 13501-1.

3.2 Resistance to fire

System fischer FiAM Intumescent Acoustic Mastic has been tested in accordance with BS EN 1366-4: 2006 based upon the test results and the field of direct application specified within EN 1366-4: 2006, the system fischer FiAM Intumescent Acoustic Mastic has been classified in accordance with EN 13501-2, as given in Annex C:



The seals may only be used in the elements of construction described in Annex C and against the substrates described in Annex C.

Provisions shall be taken such that floor joint seals cannot be stepped on e.g. by covering with wire mesh or floor finishes.

3.3 Air permeability

System fischer FiAM Intumescent Acoustic Mastic has been tested in accordance with BS EN 1314-1 to provide the following results:

Product tested				
	Results under positive chamber pressure		Results under negative chamber pressure	
Pressure (Pa)	Leakage (m ³ /h)	Leakage (m ³ /m ² /h)	Leakage (m ³ /h)	Leakage (m ³ /m ² /h)
50	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0
150	0.0	0.0	0.1	2.8
200	0.0	0.0	0.1	2.8
250	0.0	0.0	0.1	2.8
300	0.0	0.0	0.0	0.0
450	0.1	2.8	0.1	2.8
600	0.1	2.8	0.1	2.8

3.4 Water permeability

No performance determined

3.5 Dangerous substances

Fischerwerke GmbH & Co has presented a declaration that fischer FiAM Intumescent Acoustic Mastic does not contain any substance of high concern with regards to REACH Regulations and are compliant with the requirements reference to <http://ec.europa.eu/enterprise/construction/cpd-ds/index.cfm>

Confirmation has further been declared that all dangerous chemical substances ≥ 1.0 % w/w as well as all toxic, carcinogenic, toxic for reproduction and mutagenic chemical substances ≥ 0.1 % w/w (Status: 29. adaption – 2004/73/EG – of the EU directive 67/548/EEC - classification, packaging and labeling of dangerous substances) are stated in the fischer FiAM Intumescent Acoustic Mastic safety data sheets (according to 91/155/EEC including amendments) and have been considered for the classification of the products according to the directive 1999/45/EG (classification of preparations, including amendments).

All dangerous chemical substances are below the classification limits of 67/548/EEC.

In addition to the specific clauses relating to dangerous substances contained in this European technical approval, 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.



3.6 Mechanical resistance and stability

No performance determined.

3.7 Resistance to impact/movement

No performance determined.

3.8 Adhesion

Not relevant.

3.9 Airborne sound insulation

The results of the test provided the following single number rating according to BS EN 10142-2:

R_w (C;Ctr)= 38(-2;-7)

3.10 Thermal Properties

No performance determined.

3.11 Water vapour permeability

No performance determined.

3.12 Durability and serviceability

fischer FiAM Intumescent Acoustic Mastic has been tested in accordance with EOTA Technical Report - TR024 – Edition November 2006, for the type Z₁ use category specified in ETAG 026-3 (used as European Assessment Document, EAD), and the results of the tests have demonstrated suitability for linear joint seals intended for use in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV.

4 Assessment And Verification Of Constancy Of Performance (Hereinafter AVCP) System Applied, With References To Its Legal base

According to the decision 1999/454/EC of the European Commission the system of assessment and verification of constancy of performance (see Annex V to the Regulation (EU) No 305/2011) given in the following table apply:

Products	Intended uses	Level or Class	System
Fire stopping and fire sealing products	For fire compartmentation and / or fire protection or fire performance	Any	System 1



5. Technical Details Necessary For The Implementation Of The AVCP System, As Provided For In The Applicable EAD.

Tasks for the Manufacturer

Factory production control

The manufacturer shall exercise permanent internal control of production. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system shall ensure that the product is in conformity with this European technical assessment.

The manufacturer may only use constituent materials stated in the technical documentation of this European technical assessment.

The factory production control shall be in accordance with the Control Plan of 4.10.13 relating to the European technical assessment ETA 14/0379 which is part of the technical documentation of this European technical assessment. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and deposited at Warrington Certification Limited.

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the Control Plan.

Other tasks of manufacturer

Additional information

The manufacturer shall provide a technical data sheet and an installation instruction with the following minimum information:

(a) Technical data sheet:

- Field of application:
- Building elements for which the penetration seal is suitable, type and properties of the building elements like minimum thickness, density, and - in case of lightweight constructions – the construction requirements.
- Building elements for which the linear joint seal is suitable, type and properties of the building elements like minimum thickness, density, and - in case of lightweight constructions – the construction requirements.
- Limits in size, minimum thickness etc. of the linear joint seal
- Construction of the linear joint seal including the necessary components and additional products (e.g. backfilling material) with clear indication whether they are generic or specific.



(b) Installation instruction:

- Steps to be followed
- Procedure in case of retrofitting.

Tasks of approved bodies

The approved body shall perform the

- initial type-testing of the product,
- initial inspection of factory and of factory production control,
- continuous surveillance, assessment and approval of factory production control,

In accordance with the provisions laid down in the " Control Plan" of 4.10.13 relating to the European Technical Assessment 14/0379.

The approved body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report.

The approved certification body involved by the manufacturer shall issue an EC certificate of conformity of the product stating the conformity with the provisions of this European technical assessment.

In cases where the provisions of the European technical assessment and its "Control Plan" are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform the Warrington Certification Limited without delay.



Signatories



Responsible Officer

C. Abbott* - Principal Certification Engineer



Approved

A. Kearns* - Technical Manager

* For and on behalf of Warrington Certification Limited.



Annex A

Reference Documents and LIST OF ABBREVIATIONS

References to standards mentioned in the ETA:

- | | |
|------------|---|
| EN 13501-1 | Fire classification of construction products and building elements – Part 1: Classification using test data from reaction to fire tests |
| EN 13501-2 | Fire classification of construction products and building elements – Part 2: Classification using test data from fire resistance tests |

Other reference documents:

- | | |
|----------------------|---|
| EOTA TR 024 | Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products |
| ETAG No. 026: Part 3 | Guideline For European Technical Approval of Fire Stopping and Fire Sealing Products, Part 3: Linear Joint Seals(used as European Assessment Document, EAD) |




Annex B

Description of Product and Product Literature

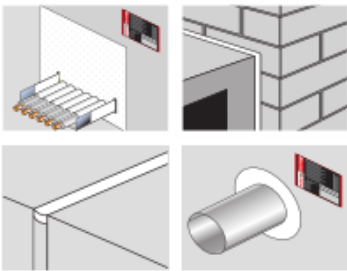
fischer FiAM Intumescent Acoustic Mastic

A detailed specification of the product is contained in document "Evaluation Report" relating to the European Technical Approval ETA 14/0379 issued on 7/10/14, of fischer FiAM Intumescent Acoustic Mastic which is a non-public part of this ETA.




Intumescent Acoustic Mastic - FiAM

Overview



Application examples:
 Metallic services-Steel / Cast Iron pipes
 General construction joints - wall / floor / head of wall
 Drywall partitions - connections
 FCPS Coated panel system joints


Approved to:

British Standard	American Standard
BS 476 - 20	ASTM E 1966 (UL 2079)
BS EN 1366-3	 <small>FILL VOID OR CAVITY MATERIAL FOR USE IN THROUGH PENETRATIONS FIRE STOP SYSTEMS SEE UL DIRECTORY OF PRODUCTS CERTIFIED FOR CANADA AND UL FIRE RESISTANCE DIRECTORY AND</small>
BS EN 1366-4	
BS EN ISO 140-3:1995	

The laboratory measurement of airborne sound insulation of building elements


Application area:

- Construction joints
- Metallic services
- FCPS Coated panel system joints




Approved CF 5034

Product Description

 **Features / uses**

Water based
 Low VOC
 Movement capability $\pm 10\%$
 Excellent acoustic properties
 Approved for infinite linear gap length
 Halogen & solvent free
 Paintable



fischer FiAM is a one part water based intumescent acrylic mastic that can provide up to 5 hours fire resistance when used in construction joints and services in both vertical and horizontal applications.

Tested to BS EN1366-4, BS 476 and BS EN ISO 717-1:1997 the FiAM is also classified to ISO 11600. Formulated to be halogen and solvent free the FiAM exhibits excellent slump characteristics and has been designed to maintain the sound reduction index of a structure.

Tested with a variety of materials, suitable compatibility in timber, steel, concrete, drywall and brick/block work, and can also be use with the FCPS Coated Panel System.

Technical Data

Chemical Base:	Water-Based Acrylic
Density:	approx 1.6 g/cm ³
Skin-forming time:	approx 10 min. at 23°C RH
Curing rate:	approx 1.5 mm per 24 hours*
Storage temperature:	+5°C to +25°C
Movement capability:	$\pm 15\%$
Slump:	Nil up to 20mm
Shelf-life:	18 months (under recommended conditions)
pH Value:	8 - 9.5
Sound transmission class: (dB)	38
Yield per l/m:	1.55 l/m**
Colour	White, Grey, Brown



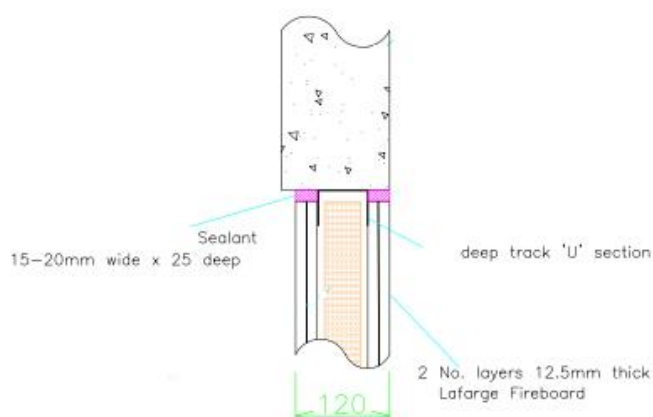
Annex C

Resistance to Fire Classification of fischer FiAM Intumescent Acoustic Mastic

C.1 Flexible Wall constructions according to 1.2.1 with wall thickness of minimum 120 mm

C.1.1 Linear joint or gap seal, horizontally orientated with sealant to the unexposed and exposed faces

Construction details: fischer FiAM Intumescent Acoustic Mastic installed both sides of the wall



C.1.1

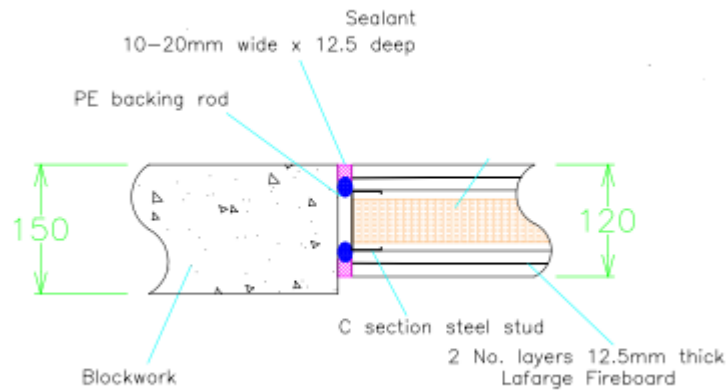
fischer FiAM Intumescent Acoustic Mastic Joint Seals. Min 120 mm Thick – Sealing of Drywall Head Track-Sealant Flush To Both Faces Of The Wall		
Substrate	Depth (mm)	Classification
Gypsum board/Steel head track	25mm. (Both Sides)	EI120-T - X - F - W 00 to 20
Gypsum board/Steel head track	25mm. (Both Sides)	EI120-V - X - F - W 00 to 20



C.2 Flexible Wall constructions according to 1.2.1 with wall thickness of minimum 120 mm

C.2.1 Linear joint or gap seal, vertically orientated with sealant to the unexposed and exposed face

Construction details: fischer FiAM Intumescent Acoustic Mastic installed both sides of the wall
 Maximum joint height 3m



C.2.2

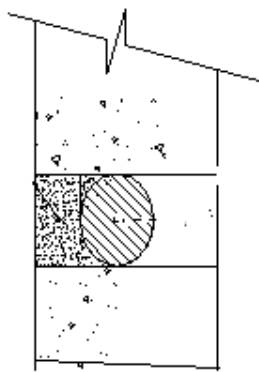
fischer FiAM Intumescent Acoustic Mastic Linear Joint Seals. Min 120 mm Thick Flexible or Rigid Wall. Sealant Flush To Both Faces Of The Wall		
Depth (mm)	Backing Material	Classification
12.5mm. (Both Sides)	PE backing Rod	EI120-V - X - F - W 00 to 20



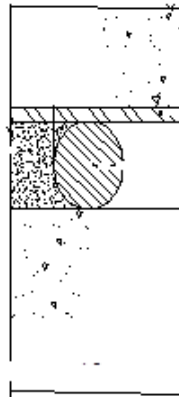
C.3 Rigid Wall constructions according to 1.2.1 with wall thickness of minimum 100 mm

C.3.1 Linear joint or gap seal, vertically orientated with sealant to one side of the wall

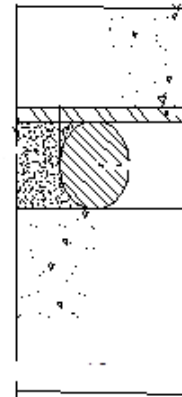
Construction details: fischer FiAM Intumescent Acoustic Mastic installed either side of the wall
 Softwood density:- minimum 410kg/m³, fixing centres 300mm



Concrete-Concrete



Concrete to Softwood



Concrete to Steel

C.3.2

fischer FiAM Intumescent Acoustic Mastic Joint Seals. Min 100 mm Thick Rigid Wall.			
Substrate	Depth (mm)	Backing Material	Classification
Concrete-Concrete	10 (Single Side)	PE backing Rod	E120 EI45-V – X – F – W 00 to 20
Concrete-Concrete	25 (Single Side)	PE backing Rod	E120 EI60-V – X – F – W 00 to 50
Concrete-Steel	10 (Single Side)	PE backing Rod	E120 EI20-V – X – F – W 00 to 20
Concrete-Steel	50 (Single Side)	PE backing Rod	E45 EI30-V – X – F – W 00 to 50
Concrete-Softwood	10 (Single Side)	PE backing Rod	E30 EI20-V – X – F – W 00 to 20
Concrete-Softwood	50 (Single Side)	PE backing Rod	EI45-V – X – F – W 00 to 50

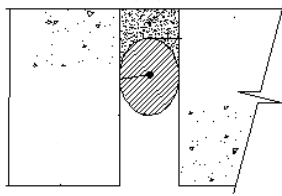


C.4 Rigid Floor constructions according to 1.2.1 with floor thickness of minimum 150 mm

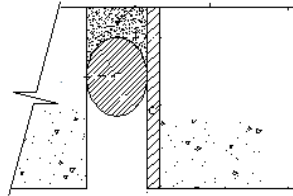
C.4.1 Linear joint or gap seal, horizontally orientated with sealant to one side of the floor

Construction details: fischer FiAM Intumescent Acoustic Mastic installed to the upper face of the floor

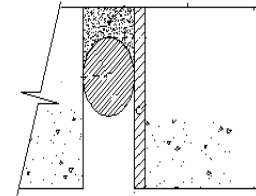
Softwood density:- minimum 410kg/m³, fixing centres 300mm



Concrete-Concrete



Concrete to Steel



Concrete to Softwood

C.4.2

fischer FiAM Intumescent Acoustic Mastic Linear Joint Seals. Min 150 mm Thick Rigid Floor.

Substrate	Depth (mm)	Backing Material	Classification
Concrete-Concrete	10 (Single Side)	PE backing Rod	E240 EI45-H - X - F - W 00 to 20
Concrete-Concrete	25 (Single Side)	PE backing Rod	E240 EI90-H - X - F - W 00 to 50
Concrete-Steel	10 (Single Side)	PE backing Rod	E120 EI20-H - X - F - W 00 to 20
Concrete-Steel	50 (Single Side)	PE backing Rod	E240 EI90-H - X - F - W 00 to 50
Concrete-Softwood	10 (Single Side)	PE backing Rod	EI30-H - X - F - W 00 to 20
Concrete-Softwood	50 (Single Side)	PE backing Rod	EI45-H - X - F - W 00 to 50

