

## PROHLÁŠENÍ O VLASTNOSTECH

### DoP-FS-1009

pro fischer FiP Intumescent Pillows (Protipožární a požárně těsnící výrobky: Uzavírání a utěšňování prostupů)

CS

- Jedinečný identifikační kód typu výrobku:** DoP-FS-1009
- Zamýšlené/zamýšlená použití:** Zachování požární odolnosti požárně dělicích konstrukcí v místech průchodů servisních a energetických vedení, viz. dodatek, obzvláště Přílohy, 1.
- Výrobce:** fischerwerke GmbH & Co. KG, Klaus-Fischer-Str. 1, 72178 Waldachtal, Německo
- Zplnomocněný zástupce:** -
- Systém/systémy POSV:** 1
- Evropský dokument pro posuzování:** EAD 350454-00-1104  
Evropské technické posouzení: ETA-20/1063; 2020-12-11  
Subjekt pro technické posuzování: ETA-Danmark A/S  
Oznámený subjekt/oznámené subjekty: 2531 - DBI Certification A/S
- Deklarovaná vlastnost/Deklarované vlastnosti:**  
**Bezpečnost v případě požáru (BWR 2)**  
Reakce na oheň: NPD  
Odolnost proti požáru: Přílohy 2, 7-11  
**Hygiena, zdraví a životní prostředí (BWR 3)**  
Průvzdušnost (vlastnost materiálu): Příloze 3  
Propustnost vody (vlastnost materiálu): NPD  
Obsah, emise a / nebo uvolňování nebezpečných látek: Příloze 3  
**Bezpečnost při používání (BWR 4)**  
Mechanická odolnost a stabilita: NPD  
Odolnost proti nárazu/pohybu: NPD  
Přilnavost: NPD  
Životnost: Příloze 3  
**Ochrana proti hluku (BWR 5)**  
Vzduchová neprůzvučnost: Příloze 3  
**Úspora energie a retence tepla (BWR 6)**  
Tepelně technické vlastnosti: NPD  
Propustnost vodních par: NPD
- Příslušná technická dokumentace a/nebo specifická technická dokumentace:** -

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarovaných vlastností. Toto prohlášení o vlastnostech se v souladu s nařízením (EU) č. 305/2011 vydává na výhradní odpovědnost výrobce uvedeného výše.

Podepsáno za výrobce a jeho jménem:



Dr.-Ing. Oliver Geibig, Výkonný ředitel pro obchodní jednotky a inženýrství  
Tumlingen, 2020-12-18



Jürgen Grün, Výkonný ředitel pro chemii a kvalitu

Toto PoV bylo připraveno v různých jazykových mutacích. V případě rozporu vždy rozhoduje interpretace verze v anglickém jazyce.

Příloha obsahuje nepovinné a doplňkové informace v anglickém jazyce nad rámec zákonných požadavků.

## 1 Technical Description of the Product

- 1) fischer FiP Intumescent Pillows are a compressible combination of reactive and non-reactive components, encased in a thin woven glass fibre casing used to reinstate the fire resistance performance of wall constructions where they have been provided with apertures for the penetration of single or multiple services.
- 2) fischer FiP Intumescent Pillows is a dry system and does not require the use of any sealant or sealing products
- 3) The fischer FiP Intumescent Pillows are supplied in three different sizes referenced Large (330mm x 200mm x 45mm), Medium (330mm x 200mm x 25mm) and Small (330mm x 50mm x 20mm), a mixture of which may be utilized to obtain a tight compression
- 4) Installation of the fischer FiP Intumescent Pillows – See 6.2

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

The intended use of fischer FiP Intumescent Pillows is to reinstate the fire resistance performance of rigid wall constructions where they are penetrated by various cables and metallic pipes

The specific elements of construction that the system fischer FiP Intumescent Pillows may be used to provide a penetration seal in, are as follows:

Rigid walls: The wall must have a minimum thickness of 150 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>.

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

- 1) The fischer FiP Intumescent Pillows may be used to provide a penetration seal with pipes and cables (for details see Annex C).
- 2) The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.
- 3) The system fischer FiP Intumescent Pillows may be used to seal apertures in the separating element up to 1100mm wide by 1100mm high dependant on the configuration. The minimum permitted separation between adjacent seals/apertures is 200mm.
- 4) Pipes must be installed singular, cables require no minimum separation.
- 5) Services in walls shall be supported at maximum 250mm from the face of the separating element.

The provisions made in this European Technical Assessment are based on an assumed working life of the fischer FiP Intumescent Pillows 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 or the Technical Assessment Body, 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

### Use Category

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, without exposure to rain or UV.

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

<b>BWR</b>	<b>Characteristic</b>	<b>Assessment of characteristic</b>
<b>2</b>	<b>Safety in case of fire</b>	
	Reaction to fire	See Clause 1.1
	Resistance to fire	See clause 1.2
<b>3</b>	<b>Hygiene, Health and the Environment</b>	
	Air permeability	See clause 2.1
	Content and Release of Dangerous substances	See clause 2.2
<b>4</b>	<b>Safety and applicability in use</b>	
	Durability	See clause 3.1
<b>5</b>	<b>Protection against noise</b>	
	Airborne sound insulation	See Clause 4.1

#### 3.1 Safety in case of fire

##### 3.1.1 Reaction to fire

No performance assessed

##### 3.1.2 Resistance to fire

fischer FiP Intumescent Pillows has been tested in accordance with BS EN 1366-3: 2009 based upon the test results and the field of direct application specified within EN 1366-3: 2009, the fischer FiP Intumescent Pillows has been classified in accordance with EN 13501-2, as given in Annex C:

The seals may only be penetrated by the services described in Annex C; other parts or support constructions must not penetrate the seal.

The service support construction must be fixed to the building element containing the penetration seal or a suitable adjacent building element, in such a manner that in the case of fire, no additional load is imposed on the seal. Furthermore it is assumed that the unexposed face support is maintained for the required period of fire resistance.

Certain pipe and cable configurations should be insulated with minimum 300mm long, 6mm thick Thermal Defence Wrap, or fischer FiP Intumescent Pillows to provide additional insulation to the pipes. See Annex C

Pipes must be perpendicular to the seal surface.

It is assumed that compressed air systems are switched off by other means in the case of fire.

## 3.2 Hygiene, Health and the environment.

### 3.1.1 Air permeability

fischer FiP Intumescent Pillows 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 <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)	Leakage (m <sup>3</sup> /h)	Leakage (m <sup>3</sup> /m <sup>2</sup> /h)
50	2.5	13.9	3.1	17.2
100	4.1	22.8	5.6	31.1
150	5.8	32.2	7.4	41.1
200	7.2	40.0	8.9	49.4
250	8.7	48.3	10.3	57.2
300	9.8	54.4	11.1	61.7
450	13.4	74.4	15.3	85.0
600	17.5	97.2	18.6	103.3

### 3.2.1. Content and release of Dangerous Substances

The applicant has presented a declaration that fischer FiP Intumescent Pillows 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  $\geq 1.0$  % w/w as well as all toxic, carcinogenic, toxic for reproduction and mutagenic chemical substances  $\geq 0.1$  % w/w (Status: 29. adaption – 2004/73/EG – of the EU directive 67/548/EEC - classification, packaging and labelling of dangerous substances) are stated in the fischer FiP Intumescent Pillows 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.

## 3.3 Safety and accessibility in use

### 3.3.1 Durability

fischer FiP Intumescent Pillows has been tested in accordance with EOTA Technical Report - TR024 – Edition November 2006, for the type Z<sub>1</sub> use category specified in EAD 350454-00-1104 , and the results of the tests have demonstrated suitability for penetration 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.

## 3.4 Protection against noise

### 3.4.1 Airborne sound insulation

The results of the test provided the following single number rating:  $R_w (C;Ctr) = 33(0;-2)$

#### **4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference 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:

<b>Products</b>	<b>Intended use/s</b>	<b>AVCP System</b>
Fire stopping and fire sealing products	For fire compartmentation and/or fire protection or fire performance	System 1

# **Annex A**

## **Reference Documents**

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
EOTA TR 024	Characterisation, Aspects of Durability and Factory Production Control for Reactive Materials, Components and Products

# Annex B

## Description of Product and Product Literature

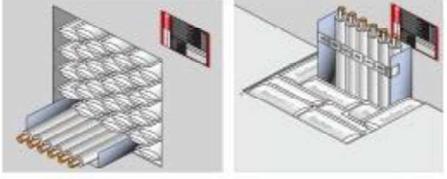
### fischer FiP Intumescent Pillows

A detailed specification of the product is contained in document "Evaluation Report" relating to the European Technical Assessment ETA – 14/0380 issued on 7/10/14, of fischer FiP Intumescent Pillows which is a non-public part of this ETA.



Intumescent Pillows - FiP

Overview



Approved to:

**British Standard**

**BS 476 - 20**

**BS EN 1366: 3**

**BS EN ISO 140-3:1997**

The laboratory measurement of airborne sound insulation of building elements



Approved CF 5037

**Application area:**

- Metal Pipes
- Cables / Cable trays
- Electrical trunking

**Application examples:**

Service penetrations like steel pipes, copper pipes, cable bundles, cable trays and electrical trunking through fire rated walls / floors.

Product Description

**Features / uses**

Approved as permanent fireproof barrier

Reusable

Dry installation

Quick and easy installation

No shelf life

Moisture resistant

Eyelet for installation



Fischer intumescent pillows - FiP is an intumescent graphite and mineral fibre blend covered in a glass fibre PVC coated cloth bag. FiP is suitable for applications where temporary and permanent fire barriers are required.

Tested to BS 476: Part 20 and BS EN 1366-3, FiP can provide up to 2 hours of fire protection in both vertical and horizontal, multi or mixed service penetrations.

Technical Data

State	Solid
Colour	Black
Odour	Odourless
Relative density	0.15
Volumetric expansion	3 times
Significant expansion occurs at temperature	> 140°C
Remain flexible between	-20°C to 130°C

Estimation Quantities

Width mm	Size U Seal type	Length mm											
		100		300		500		700		900		1000	
		Large	Medium	Large	Medium	Large	Medium	Large	Medium	Large	Medium	Large	Medium
200	Wall	3	5	7	13	12	22	17	31	21	39	24	47
	Floor	2	3	4	7	6	12	9	17	11	22	12	27
400	Wall	5	9	14	26	24	44	33	61	42	78	47	95
	Floor	3	5	7	15	12	24	17	34	22	43	24	52
600	Wall	7	13	21	39	35	65	49	91	63	117	70	143
	Floor	4	7	11	22	18	36	25	51	33	65	36	79
800	Wall	9	18	28	52	47	87	66	122	84	157	94	192
	Floor	5	10	15	29	24	48	34	67	33	87	48	107
1000	Wall	10	22	35	65	59	109	82	152	105	196	117	217
	Floor	6	12	18	36	30	60	42	84	54	108	60	120

Appendix 6/11

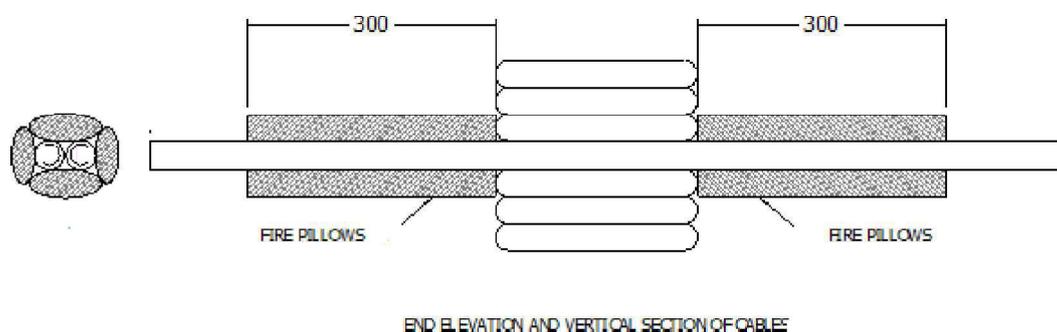
## Annex C

### Resistance to Fire Classification of fischer FiP Intumescent Pillows

#### C.1.1 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm

#### C.1.2 Penetration seal with fischer FiP Intumescent Pillows installed 75mm projection from each face of the wall

Construction details: Electrical cables. Additional fischer FiP Intumescent Pillows to be sewn to provide additional protection to the cable to minimum distance of 300mm either face of the seal

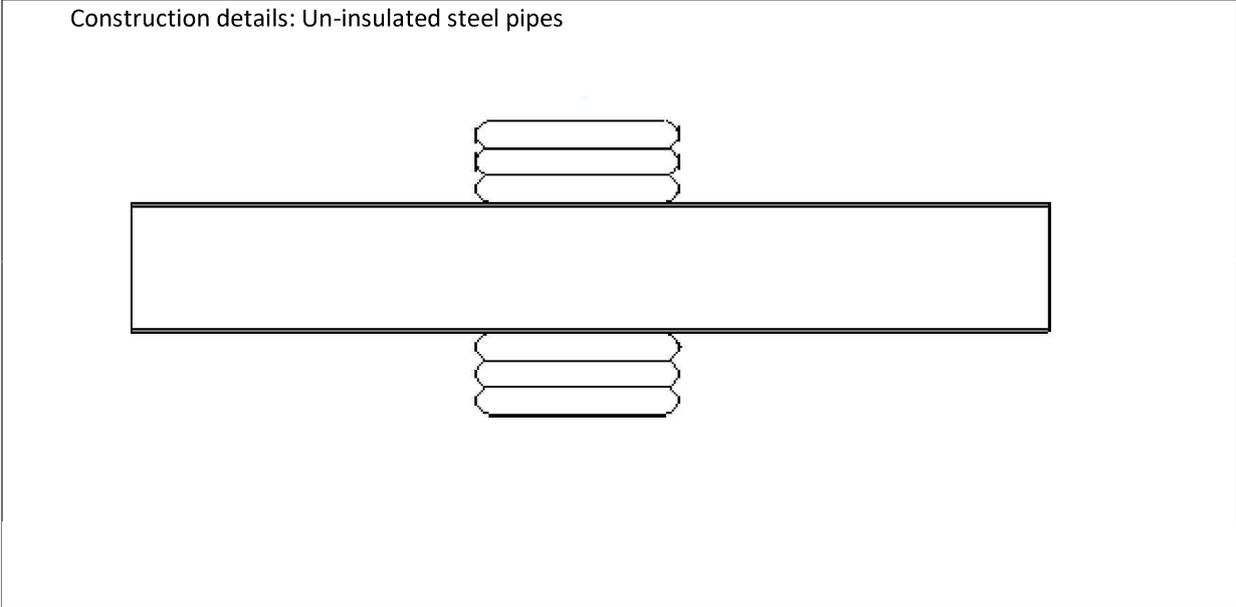


#### C.1.3

<b>fischer FiP Intumescent Pillows Penetration Seals 300 mm deep, in Rigid Walls 150 mm thick (min.)</b>	
<b>Services</b>	<b>Classification</b>
Telecom cables up to 21mm Ø (single or bundles up 100 mm Ø)	<b>EI 120</b>
Electrical cables up to 21 mm Ø	<b>EI 120</b>
Electrical cables up to 50 mm Ø	<b>E 120, EI90</b>
Electrical cables up to 80 mm Ø	<b>E120, EI 90</b>
Unsheathed wires up to 24 mm Ø	<b>EI 120</b>
Steel or Copper conduits and tubes up to 16 mm Ø	<b>EI 120</b>
Plastic (any) conduits and tubes up to 16 mm Ø	<b>EI 120</b>
Cable trays or ladders up to 300 mm wide	<b>E 120, EI 60</b>

**C2 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm**

**C.2.2 Penetration seal with fischer FiP Intumescent Pillows installed 75mm projection from each face of the wall**

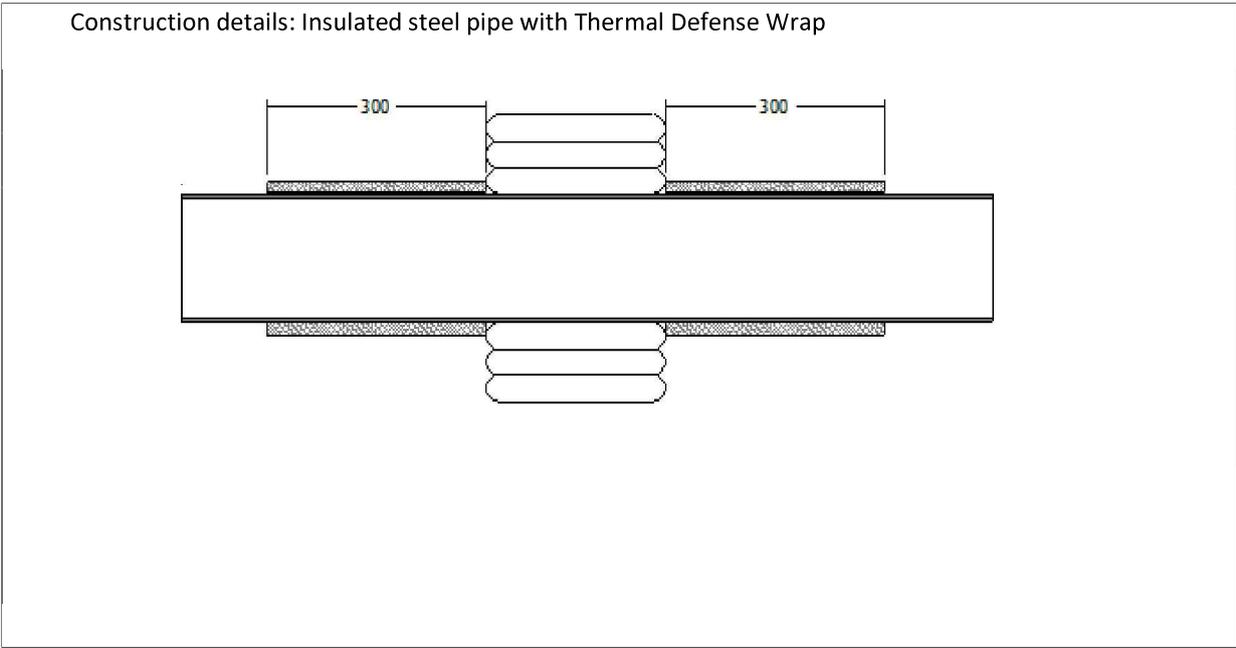


**C.2.3**

<b>fischer FiP Intumescent Pillows Penetration Seals 300 mm deep, in Rigid Walls 150 mm thick (min.)</b>	
<b>Services</b>	<b>Classification</b>
165 mm Ø x 5.6-14.2 mm thick mild steel pipe	<b>E 120 C/U</b>

**C3 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm**

**C.3.2 Penetration seal with fischer FiP Intumescent Pillows installed 75mm projection from each face of the wall**

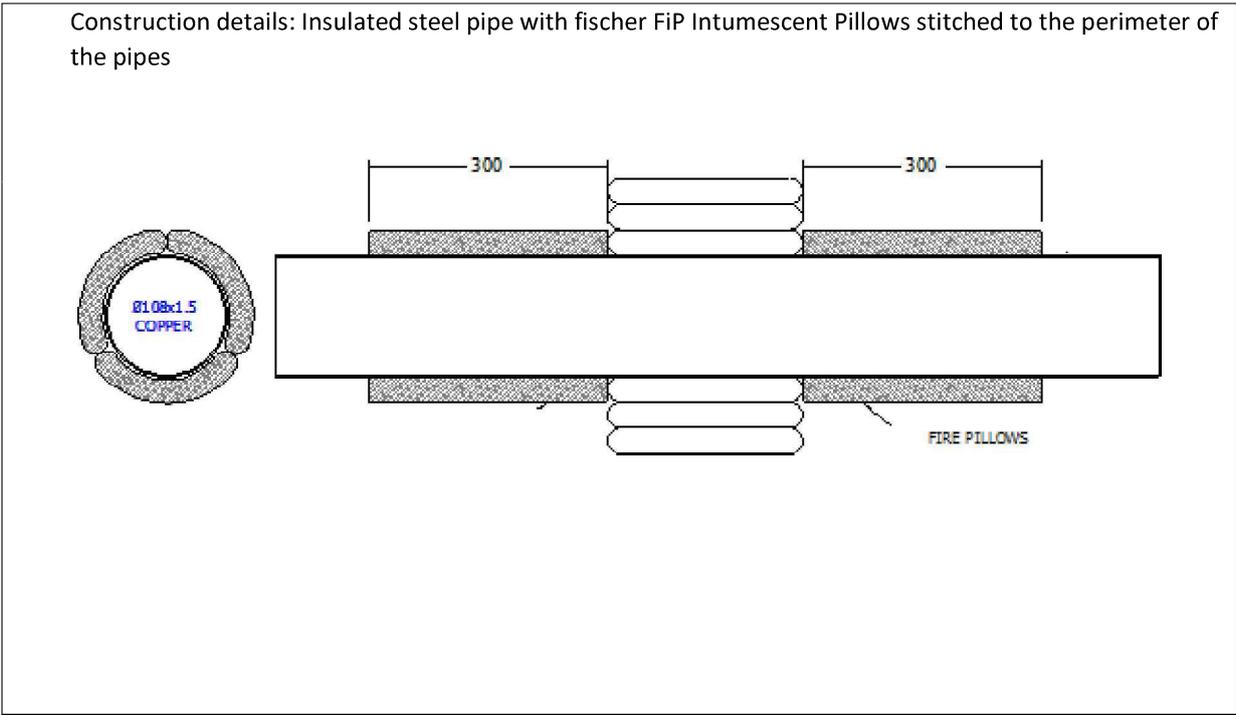


**C.3.3**

<b>fischer FiP Intumescent Pillows Penetration Seals 300 mm deep, in Rigid Walls 150 mm thick (min.)</b>	
<b>Services</b>	<b>Classification</b>
48mmØ x 3,5-14,2mm thick steel pipe with 300 mm Local Interrupted (LI) Thermal Defence Wrap 7mm thick	<b>EI 120 C/U</b>
113mmØ x 4,5-14,2mm thick steel pipe with 300 mm Local Interrupted (LI) Thermal Defence Wrap 10mm thick	<b>EI 120 C/U</b>

**C4 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm**

**C.4.2 Penetration seal with fischer FiP Intumescent Pillows installed 75mm projection from each face of the wall**

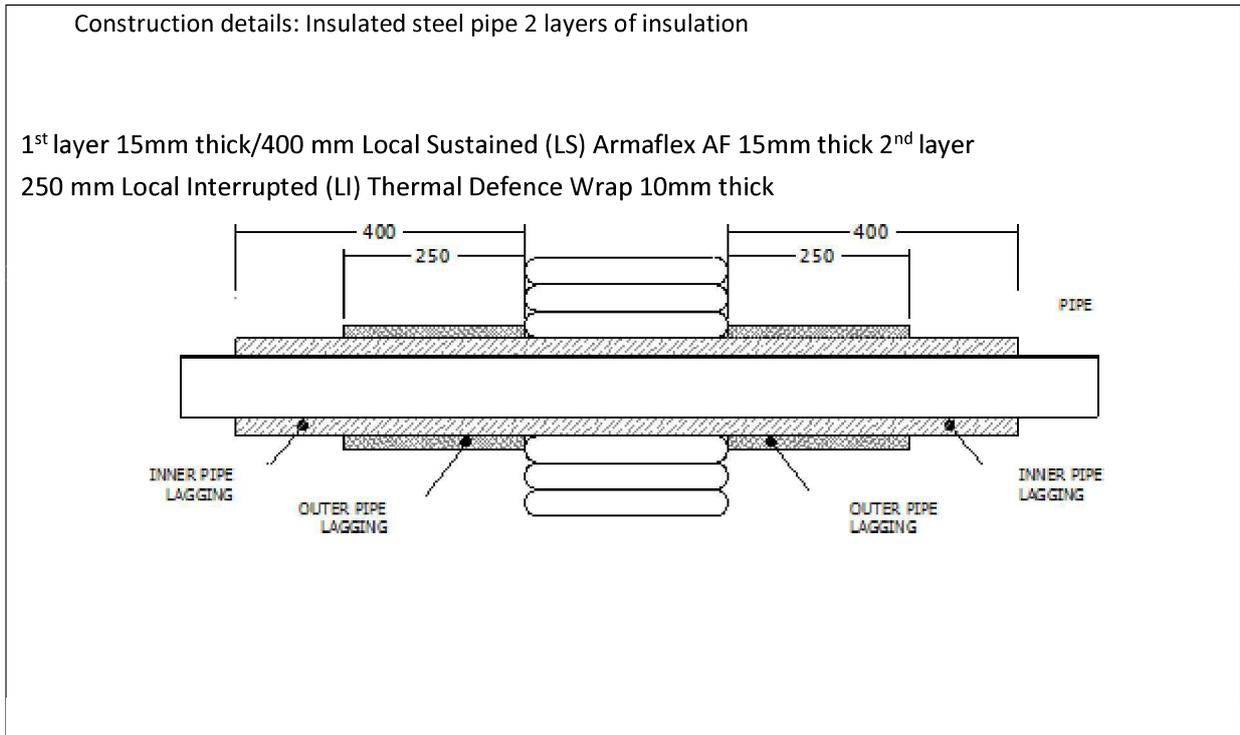


**C.4.3**

fischer FiP Intumescent Pillows Penetration Seals 300 mm deep, in Rigid Walls 150 mm thick (min.)	
Services	Classification
108 mm Ø x 1.5-14.2 mm thick copper pipe	E 120 C/U, EI 90 C/U

**C5 Rigid wall constructions according to 1.2.1 with wall thickness of minimum 150 mm**

**C.5.2 Penetration seal with fischer FiP Intumescent Pillows installed 75mm projection from each face of the wall**



**C.5.3**

<b>fischer FiP Intumescent Pillows Penetration Seals 300 mm deep, in Rigid Walls 150 mm thick (min.)</b>	
<b>Services</b>	<b>Classification</b>
54mmØ x 1.0-14.2mm thick copper pipe with 2 layers of insulation	<b>EI 120</b>