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 United Kingdom.



designated according to Article 29 of the Regulation (EU) No 305/2011 and member of EOTA (European Organisation for Technical Assessment, www.eota.eu)

## European Technical Assessment

## ETA 13/0387 of 07/09/2015

**Technical Assessment Body issuing the ETA and designated according to Article 29 of the Regulation (EU) No 305/2011:** **UL International (UK) Ltd**

**Trade name of the construction product**

Firebreak Compound  
 Sealfire W1000 Compound

(2 references for the same product)

**Product family to which the construction product belongs**

Fire Stopping and Sealing Product:  
 • Penetration Seals

**Manufacturer**

Neutron Fire Technologies Limited  
 Shire Hall  
 Quay Street  
 Lostwithiel  
 Cornwall  
 PL22 0BS

**Manufacturing plant(s)**

A/002

**This European Technical Assessment contains**

17 pages including 1 Annex which forms an integral part of this assessment.

**This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of**

ETAG 026-2, edition 2011, used as European Assessment Document (EAD).

**This version replaces**

ETA 13/0387 issued on 08/05/2013

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## I. SPECIFIC PARTS OF THE EUROPEAN TECHNICAL ASSESSMENT

### 1 Technical description of the product

- 1) The Firebreak Compound is a gypsum based mortar material, used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetrations of multiple services. Firebreak Compound and Sealfire W1000 Compound are identical products but are branded and packaged differently.
- 2) The Firebreak Compounds is supplied as a dry material, and is mixed with water to the required ratio prior to installation.
- 3) Firebreak Compound / Sealfire W1000 Compound when mixed is self-supporting in a wall orientation, with no permanent backing material required. In a floor Firebreak Compound / Sealfire W1000 Compound is poured onto a structure comprising 60mm x 60mm x 6mm steel angle cassette system, which supports a 50mm thick Mineral Fibre Board (140kg/m<sup>3</sup>).
- 4) The applicant has submitted a written declaration that the product and/or constituents of the product contains no substances which have been classified as dangerous according to Directive 67/548/EEC and Regulation (EC) No. 1272/2008 and listed in the 'indicative list on dangerous substances' of the EGDS – taking into account the installation conditions of the construction product and the release scenarios resulting from there.

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.

- 5) The use category of Firebreak Compound in relation to BWR 3 (Hygiene, health and environment) is IA1, S/W3

### 2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): ETAG 026-2

Detailed information and data is given in Annex A.

The intended use of system Firebreak Compound is to reinstate the fire resistance performance of flexible wall, rigid wall and rigid floor constructions, where they are penetrated by services.

- 1) The specific elements of construction that the system Firebreak Compound may be used to provide a penetration seal in, are as follows:

- |                 |  |
|-----------------|--|
| Flexible walls: | The wall must have a minimum thickness of 100 mm and comprise steel studs lined on both faces with minimum 2 layers of 12.5 mm thick boards.           |
| 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/m <sup>3</sup> . |
| Rigid floors:   | The floor must have a minimum thickness of 150 mm and comprise concrete, or aerated concrete, 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.

- 2) The system Firebreak Compound may be used to provide a penetration seal with specific supporting constructions and substrates (for details see Annex A).
- 3) The provisions made in this European Technical Assessment are based on an assumed working life of the Firebreak Compound of 25 years, provided that the conditions laid down in the manufacturers datasheet and instructions 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.
- 4) Type Y<sub>2</sub>: intended for use at temperatures below 0°C, but with no exposure to rain nor UV. Includes lower use categories.

**3 Performance of the product and references to the methods used for its assessment**

Product-type: Bag/Pillow		Intended use: Penetration Seal
Basic requirement for construction work	Basic Requirement	Performance
<b>BWR 1 Mechanical resistance and stability</b>		
-	None	Not relevant
<b>BWR 2 Safety in case of fire</b>		
EN 13501-1	Reaction to fire	Class A1
EN 13501-2	Resistance to fire	Annex A
<b>BWR 3 Hygiene, health and environment</b>		
EN 1026:2000	Air permeability (material property)	No performance determined
ETAG 026-2, Annex C	Water permeability (material property)	No performance determined
Declaration of manufacturer	Release of dangerous substances	Use categories: IA1, S/W3 Declaration of manufacturer
<b>BWR 4 Safety in use</b>		
EOTA TR 001:2003	Mechanical resistance and stability	No performance determined
EOTA TR 001:2003	Resistance to impact/movement	No performance determined
EOTA TR 001:2003	Adhesion	No performance determined
<b>BWR 5 Protection against noise</b>		
EN 10140-2/ EN ISO 717-1	Airborne sound insulation	No performance determined
<b>BWR 6 Energy economy and heat retention</b>		
EN 12664, EN 12667 or EN 12939	Thermal properties	No performance determined
EN ISO 12572 EN 12086	Water vapour permeability	No performance determined
<b>General aspects relating to fitness for use</b>		
EOTA TR 024:2009, clause 3.1.11 & 3.1.12	Durability and serviceability	Y <sub>2</sub>
<b>BWR 7 Sustainable use of natural resources</b>		
-	-	No performance determined

**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 – Commission Decision of date 22nd June 1999 on the procedure for attesting the conformity of construction products pursuant to Article 20(2) of Council Directive 89/106/EEC as regards fire stopping, fire sealing and fire protective products, published in the Official Journal of the European Union (OJEU) L178/52 of 14/07/1999, see <http://eur-lex.europa.eu/JOIndex.do> of the European Commission<sup>1</sup>, as amended, the system(s) of assessment and verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table(s) applies (apply).

<b>Product(s)</b>	<b>Intended use(s)</b>	<b>Level(s) or class(es)</b>	<b>System(s)</b>
Fire stopping and Fire Sealing Products	For fire compartmentation and/or fire protection or fire performance	Any	1

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

Tasks of 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 initial / raw / 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 8<sup>th</sup> May 2013 relating to the European Technical Assessment ETA 13/0387 issued on 07/09/2015 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 UL International (UK) Ltd.

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

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<sup>1</sup> Official Journal of the European Communities L178/52 of 14/7/1999

Other tasks of the 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.
- Limits in size, minimum thickness etc. of the penetration seal
- Construction of the penetration 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
- Stipulations on maintenance, repair and replacement

**6 Issued on:**

**7<sup>th</sup> September 2015**

Report by:



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Reviewed by:



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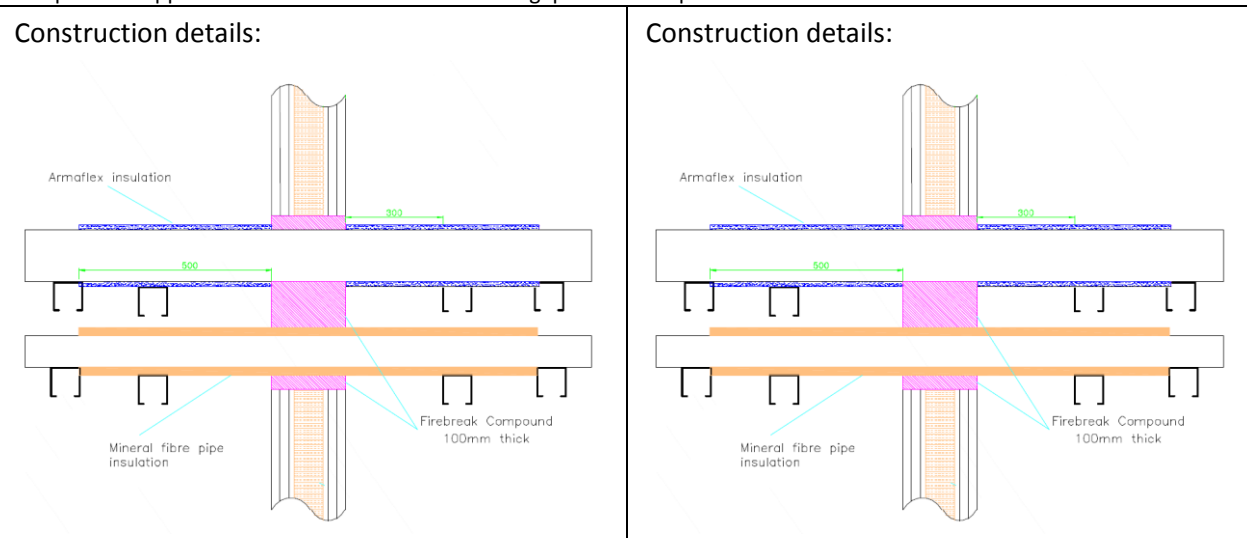
**For and on behalf of UL International (UK) Ltd.**

# ANNEX A – Resistance to Fire Classification – Firebreak Compound

## A.1 Flexible or rigid wall constructions with wall thickness of minimum 100 mm

### A.1.1 Firebreak Compound penetration seal in flexible or rigid walls min. 100 mm thick

Penetration Seal: Metallic pipes (insulated and un-insulated) and various cables (insulated and un-insulated) penetrating through a flexible or rigid wall construction. Firebreak Compound installed centrally within the wall to full depth. Firebreak Compound is applied to seal around the services and gaps of service penetration.



#### A.1.1.1

Services	Armaflex Nitrile Rubber Service Insulation	Classification
Copper pipe 22-38 mm Ø, 1 – 14.2mm wall	19 mm x 500 mm (LI)	EI 120 C/U
Copper pipe 93 mm Ø, 1.6 – 14.2mm wall	25 mm x 500 mm (LI)	
Steel pipe 19mm Ø, 1.2 – 14.2mm wall	19 mm x 500 mm (LI)	
Steel pipe 38mm Ø, 1.2 – 14.2mm wall	25 mm x 500 mm (LI)	
Steel pipe 193.7mm Ø, 1.2 – 14.2mm wall	25 mm x 500 mm (LI)	E 120 C/U EI 60 C/U
Steel pipe 193.7mm Ø, 1.2 – 14.2mm wall	25 mm (CI)	E 120 C/U EI 90 C/U
Copper pipe 22 mm Ø, 1 – 14.2mm wall	None	E 120 C/U EI 90 C/U
Copper pipe 38 mm Ø, 1.2 – 14.2mm wall	None	E 120 C/U EI 15 C/U
Copper pipe 93 mm Ø, 1.6 – 14.2mm wall	None	E 120 C/U EI 30 C/U
Steel pipe 19mm Ø, 1.2 – 14.2mm wall	None	EI 120 C/U
Steel pipe 38mm Ø, 1.2 – 14.2mm wall	None	E 120 C/U EI 60 C/U
Steel pipe 193.7mm Ø, 1.2 – 14.2mm wall	None	E 120 C/U EI 15 C/U
Services	Rock Mineral Wool Service Insulation	Classification
Copper pipe 22-93 mm Ø, 1 – 14.2mm wall	25 mm (CI)	EI 120 C/U

'CI' = continued interrupted

'LI' = local interrupted



Services	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
Electrical cables up to 21 mm diameter	None	E 120 EI 60
Electrical cables up to 80 mm diameter	None	E 120 EI 45
Electrical cables up to 80 mm diameter	5mm thick by 300mm long	EI 120
Steel cable trays up to 150 x 50 x 1.5 mm	None	E 120 EI 60
Up to 21mm Ø telecomm cables in bundles of up to 100 mm diameter	5mm thick by 300mm long	EI 120
Non-sheathed wire up to 24 mm Ø		
Steel cable trays up to 300 x 25 x 1.5 mm		
Up to 21mm Ø telecomm cables in bundles of up to 100 mm diameter	None	EI 120
Non-sheathed wire up to 24 mm Ø		E 120 EI 90
Steel cable trays up to 300 x 25 x 1.5 mm		EI 120

'CI' = continued interrupted

'LI' = local interrupted

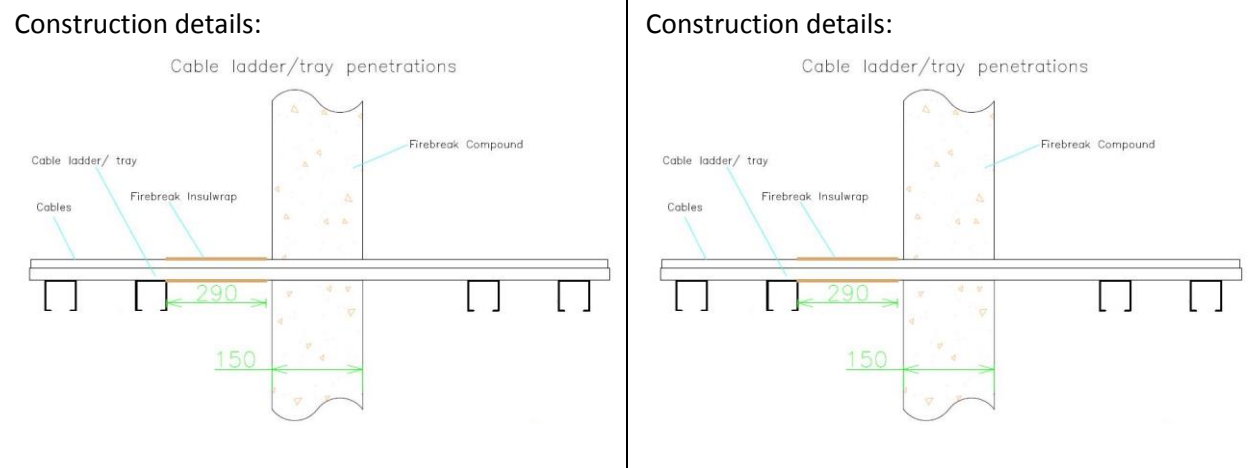
Specific Cables*	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
C1, C2, C3 electrical cables	None	E 240 EI 60
A1, A2, A3, D3 electrical cables		E 240 EI 90
D1, D2 electrical cables		E 240 EI 120

\* as defined in EN 1366-3: 2009

## A.2 Rigid wall constructions with wall thickness of minimum 150 mm

### A.2.1 Firebreak Compound penetration seal in rigid walls min. 150 mm thick

Penetration Seal: Metallic pipes (insulated and un-insulated) and various cables (insulated and un-insulated) penetrating through a rigid wall construction. Firebreak Compound installed centrally within the wall to full depth. Firebreak Compound is applied to seal around the services and gaps of service penetration.



#### A.2.1.1

Services	Armaflex Nitrile Rubber Service Insulation	Classification
Steel pipe 38mm Ø, 1.9 – 14.2mm wall	25 mm (CI)	EI 240 C/U
Steel pipe 38 - 194mm Ø, 5 – 14.2mm wall		
Copper pipe 22mm Ø, 1 – 9mm wall	20 mm (CI)	
Copper pipe 42 mmØ, 1.2 – 14.2mm wall	25 mm (CI)	E 240 C/U
Copper pipe 42 - 89mm Ø, 1.6 – 14.2mm wall,		EI 90 C/U
Steel pipe 19mm Ø, 1.2 – 9mm wall	20 mm by 500 mm (LI)	EI 240 C/U
Steel pipe 38mm Ø, 1.9 – 14.2mm wall	25 mm by 500 mm (LI)	E 240 C/U
Steel pipe 38 - 194mm Ø, 5 – 14.2mm wall		EI 30 C/U
Copper pipe 22mm Ø, 1 – 9mm wall	20 mm by 500 mm (LI)	E 240 C/U
Copper pipe 42mm Ø, 1.2 – 14.2mm wall	25 mm by 500 mm (LI)	EI 120 C/U
Copper pipe 42 - 89mm Ø, 1.6 – 14.2mm wall		E 240 C/U
Steel pipe 19mm Ø, 1.2 – 9mm wall	20 mm by 500 mm (LI)	EI 60 C/U
Steel pipe 19mm Ø, 1.2 – 9mm wall	20 mm by 500 mm (LI)	EI 240 C/U

'CI' = continued interrupted

'LI' = local interrupted

Services	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
Steel pipe 38mm $\varnothing$ , 1.9 – 14.2mm wall	None	E 240 C/U EI 180 C/U
Steel pipe 38 - 194mm $\varnothing$ , 5 – 14.2mm wall		E 240 C/U EI 15 C/U
Copper pipe 22mm $\varnothing$ , 1 – 9mm wall		E 240 C/U EI 90 C/U
Electrical cables up to 21 mm $\varnothing$		E 240 EI 60
Electrical cables up to 80 mm $\varnothing$		E 240 EI 45
Non-sheathed wire up to 17 mm $\varnothing$		E 240 EI 60
Non-sheathed wire 18-24 mm $\varnothing$		E 240 EI 45
Up to 21mm $\varnothing$ telecomm cables in bundles of up to 100 mm diameter		E 180 EI 120
Electrical cables up to 21 mm $\varnothing$	5mm thick by 300mm long	E 240 EI 120
Electrical cables up to 80 mm $\varnothing$		E 240 EI 90
Non-sheathed wire up to 17 mm $\varnothing$		EI 240
Non-sheathed wire 18-24 mm $\varnothing$		E 240 EI 180
Up to 21mm $\varnothing$ telecomm cables in bundles of up to 100 mm diameter		E 180 EI 120

'CI' = continued interrupted

'LI' = local interrupted

Specific Cables*	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
C1, C3, D1, D3 electrical cables	None	E 240 EI 60
C2 electrical cables		E 240 EI 90
A1, A2, A3, D2 electrical cables		E 240 EI 120
C2, D1, D3 electrical cables	5mm thick by 300mm long	E 240 EI 120
C3 electrical cables		E 240 EI 180
A1, A2, A3, D2 electrical cables		EI 240

\* as defined in EN 1366-3: 2009

### A.3 Rigid floor constructions with wall thickness of minimum 150 mm

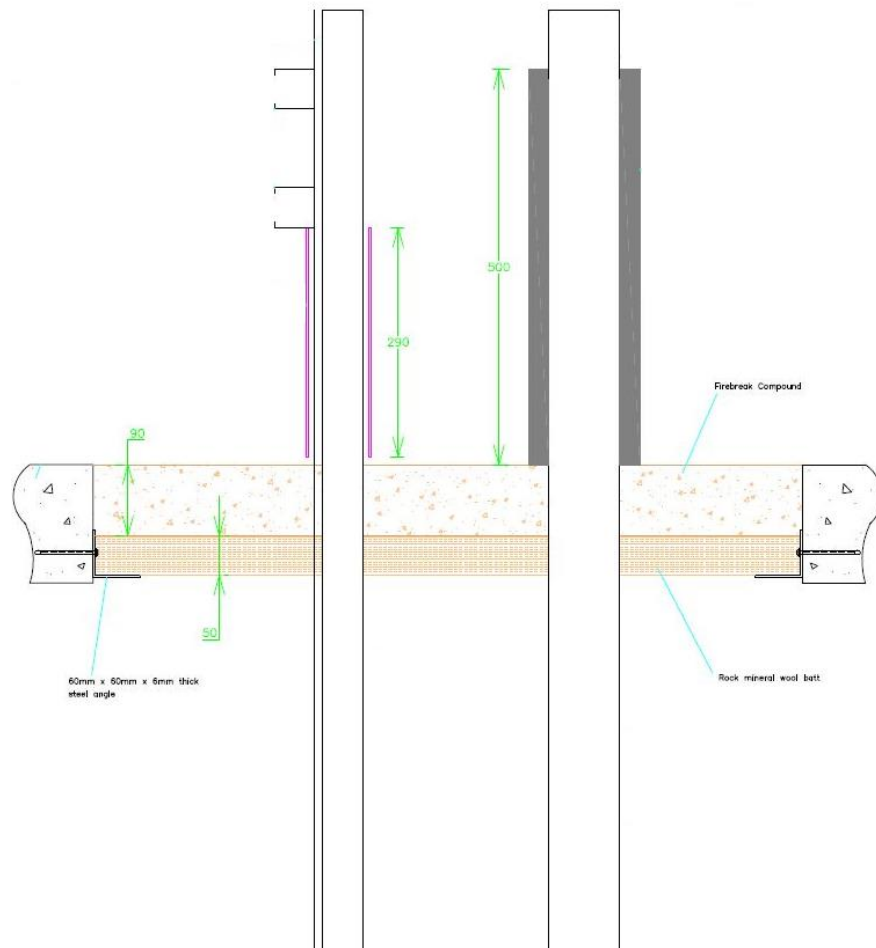
#### A.3.1 Firebreak Compound penetration seal in rigid floors min. 150 mm thick

Penetration Seal: Metallic pipes (insulated and un-insulated) and various cables (insulated and un-insulated) penetrating through a rigid floor construction. Firebreak Compound installed flush to the top of the floor and to a minimum 90 mm depth, maximum seal size 1400 x 1200 mm.

A steel support and mineral fibre board structure is installed as a shutter and a structural support for the Firebreak Compound seal

Firebreak Compound is poured around the services and gaps of service penetration

Construction details:



### A.3.1.1

Services	Armaflex Nitrile Rubber Service Insulation	Classification
Steel pipe 19mm Ø, 1.2 – 9mm wall	20 mm (CI)	E 240 C/U EI 180 C/U
Steel pipe 38mm Ø, 1.9 – 14.2mm wall	25 mm (CI)	
Steel pipe 38 - 194mm Ø, 5 – 14.2mm wall		
Copper pipe 22mm Ø, 1 – 9mm wall	20 mm (CI)	EI 240 C/U
Copper pipe 42mm Ø, 1.6 – 14.2mm wall	25 mm (CI)	E 240 C/U EI 60 C/U
Copper pipe 42 - 89mm Ø, 1.6 – 14.2mm wall		
Steel pipe 19mm Ø, 1.2 – 9mm wall	20 mm by 500 mm (LI)	E 240 C/U
Steel pipe 38mm Ø, 1.9 – 14.2mm wall	25 mm by 500 mm (LI)	EI 180 C/U
Steel pipe 38 - 194mm Ø, 5 – 14.2mm wall		
Copper pipe 22mm Ø, 1 – 9mm wall	20 mm by 500 mm (LI)	E 240 C/U EI 45 C/U
Copper pipe 42 mm Ø, 1.6 – 14.2mm wall	25 mm by 500 mm (LI)	EI 240 C/U
Copper pipe 42 - 89mm Ø, 1.6 – 14.2mm wall		
Steel pipe 19mm Ø, 1.2 – 9mm wall		
Steel pipe 38 - 194mm Ø, 5 – 14.2mm wall	None	E 240 C/U EI 15 C/U
Copper pipe 22mm Ø, 1 – 9mm wall		
Copper pipe 42mm Ø, 1.6 – 14.2mm wall		
Copper pipe 42 - 89mm Ø, 1.6 – 14.2mm wall		
Electrical cables up to 21 mm Ø		
Electrical cables up to 80 mm Ø		
Non-sheathed wire up to 24 mm Ø		
Up to 21mm Ø telecomm cables in bundles of up to 100 mm diameter		
		E 240 EI 30
		E 240 EI 90
		E 240 EI 60
		E 240 EI 30
		E 240 EI 60
Services	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
Electrical cables up to 21 mm Ø	5mm thick by 300mm long	E 240 EI 120
Electrical cables up to 80 mm Ø		
Non-sheathed wire up to 24 mm Ø		
Up to 21mm Ø telecomm cables in bundles of up to 100 mm diameter		
Steel or Copper conduits and tubes up to 16 mm Ø	None	E 120 EI 15
Plastic (any) conduits and tubes up to 16 mm Ø		

'CI' = continued interrupted

'LI' = local interrupted

Specific Cables*	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
A2 electrical cables	None	E 240 EI 120
A1, A2, A3, D2 electrical cables	5mm thick by 300mm long	E 240 EI 120

\* as defined in EN 1366-3: 2009

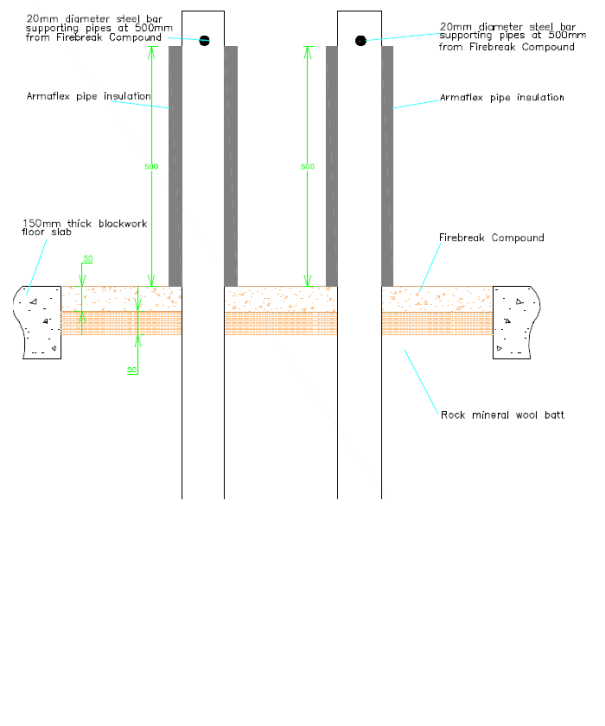
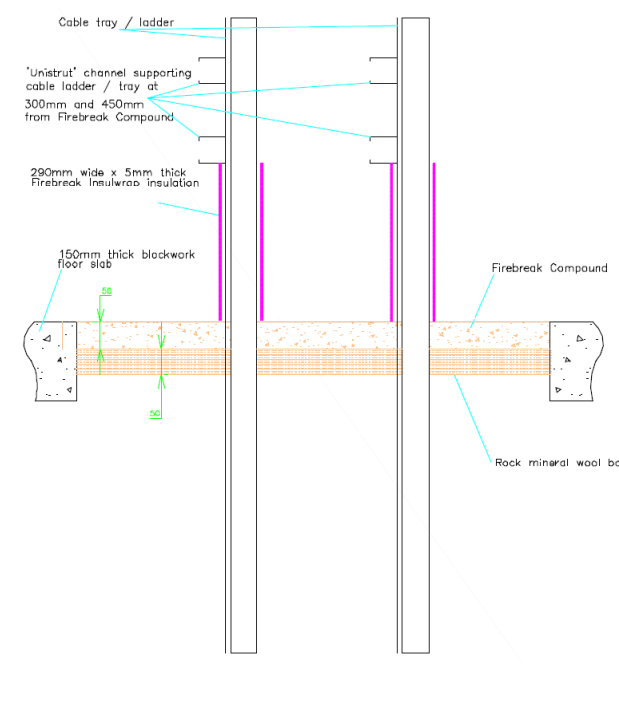
### A.3.2 Firebreak Compound penetration seal in rigid floors min. 150 mm thick

Penetration Seal: Metallic pipes (insulated and un-insulated) and various cables (insulated and un-insulated) penetrating through a rigid floor construction. Firebreak Compound installed flush to the top of the floor and to a minimum 50 mm depth, maximum seal size 700 x 600 mm.

A mineral fibre board structure is installed as a shutter and a structural support for the Firebreak Compound seal

Firebreak Compound is poured around the services and gaps of service penetration

#### Construction details:



### A.3.2.1

Services	Armaflex Nitrile Rubber Service Insulation (optional top face only)	Classification
Steel pipe 19mm $\varnothing$ , 1.0 – 14.2mm wall	19 mm by 500 mm (LI)	EI 120 C/U
Steel pipe 40mm $\varnothing$ , 1.2 – 14.2mm wall	25 mm by 500 mm (LI)	
Steel pipe 194mm $\varnothing$ , 8.0 – 14.2mm wall		
Copper pipe 22mm $\varnothing$ , 1 – 9mm wall	19 mm by 500 mm (LI)	EI 120 C/U
Copper pipe 42mm $\varnothing$ , 1.2 – 14.2mm wall	25 mm by 500 mm (LI)	
Copper pipe 89mm $\varnothing$ , 1.6 – 14.2mm wall		
Copper pipe 22-89mm $\varnothing$ , 1.2 – 14.2mm wall	None	E 120 C/U
Steel pipe 19mm $\varnothing$ , 1.0 – 14.2mm wall		E 120 C/U EI 60 C/U
Steel pipe 40mm $\varnothing$ , 1.2 – 14.2mm wall		E 120 C/U EI 30 C/U
Steel pipe 194mm $\varnothing$ , 8.0 – 14.2mm wall		E 120 C/U EI 15 C/U
Steel pipe 19mm $\varnothing$ , 1.0 – 14.2mm wall		19 mm (CI)
Steel pipe 40mm $\varnothing$ , 1.2 – 14.2mm wall	25 mm (CI)	EI 120 C/U
Steel pipe 194mm $\varnothing$ , 8.0 – 14.2mm wall		E 120 C/U EI 30 C/U
Copper pipe 22mm $\varnothing$ , 1 – 9mm wall	19 mm (CI)	EI 120 C/U
Copper pipe 42mm $\varnothing$ , 1.2 – 14.2mm wall	25 mm (CI)	
Copper pipe 89mm $\varnothing$ , 1.6 – 14.2mm wall		
Services	Insulwrap Aluminium Foil Face Insulation (LI)	Classification
Electrical cables up to 21 mm $\varnothing$	5mm thick by 300mm long	E 120 EI 90
Electrical cables up to 80 mm $\varnothing$		E 90 EI 60
Non-sheathed wire up to 24 mm $\varnothing$		E 120 EI 90
Up to 21mm $\varnothing$ telecomm cables in bundles of up to 100 mm diameter		EI 90
Steel ladders and non-perforated trays up to 500 x 60 x 1.5 mm	None	EI 120
Steel perforated trays up to 500 x 60 x 1.5 mm		EI 90
Electrical cables up to 21 mm $\varnothing$		E 120 EI 30
Electrical cables up to 80 mm $\varnothing$		E 90 EI 15
Non-sheathed wire up to 24 mm $\varnothing$		
Up to 21mm $\varnothing$ telecomm cables in bundles of up to 100 mm diameter		E 90 EI 30

'CI' = continued interrupted

'LI' = local interrupted



<b>Specific Cables*</b>	<b>Insulwrap Aluminium Foil Face Insulation (LI)</b>	<b>Classification</b>
C3, D1, D3 electrical cables	None	<b>E 240</b> <b>EI 30</b>
C1, C2, D2 electrical cables		<b>E 240</b> <b>EI 60</b>
A1, A3, electrical cables		<b>E 240</b> <b>EI 90</b>
A2 electrical cables		<b>E 240</b> <b>EI 120</b>
B, C1, C2, D1, D3 electrical cables	5mm thick by 300mm long	<b>E 240</b> <b>EI 90</b>
A1, A2, A3, D2 electrical cables		<b>E 240</b> <b>EI 120</b>

\* as defined in EN 1366-3: 2009