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appointed according to Article 29 of Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020

UK Technical Assessment

0843-UKTA-24/0047 of 08/09/2025

Technical Assessment Body Issuing the UKTA:	UL International (UK) Ltd
Trade name of the construction product	Astro FRA Socket Box Insert
Product family to which the construction product belongs	Fire Stopping and Fire Sealing Products - Penetration Seals
Manufacturer	Astroflame Fireseals Ltd Intumescent House Unit 8 The I.O Centre Stephenson Road Fareham Hampshire PO15 5RU
Manufacturing plant(s)	A/028
This UK Technical Assessment contains	18 pages including Annex A which forms an integral part of this assessment
This UK Technical Assessment* is issued, on the basis of	EAD 350454-00-1104, September 2017
This version replaces	0843-UKTA-24/0047 issued on 20/11/2024

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*** in accordance with Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020**

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SPECIFIC PARTS OF THE UK TECHNICAL ASSESSMENT

1 Technical description of the product

1 The Astro FRA Socket Box Insert is a fire resistant, mineral fibre, socket box insert used to limit the passage of fire and smoke through the cavity where a socket box penetrates a wall.

2 The Astro FRA Socket Box Insert is supplied in single and double pre-formed sizes for 35mm and 47mm back box depths. The Socket Box Insert is push fitted into the metal or plastic back boxes with the flange holding the insert in position.

3 The use category of Astro FRA Socket Box Insert in relation to BWR 3 (hygiene, health and environment) is IA1, S/W2.

2 Specification of the intended use(s) in accordance with the applicable UK Assessment Document (Pre-Exit European Assessment Document): EAD 350454-00-1104

Detailed information and data are given in Annex A.

The intended use of system Astro FRA Socket Box Insert is to reinstate the fire resistance performance of flexible wall constructions, where they are penetrated by socket boxes.

1) The specific elements of construction that the system Astro FRA Socket Box Insert may be used to provide a penetration seal in, are as follows:

   Flexible walls: The wall must have a minimum thickness of 75mm and comprise steel or timber studs lined on both faces with minimum 1 layer of 12.5mm thick board.

   *No part of the penetration seal may be closer than 100mm to a timber stud, the cavity must be closed between the penetration seal and the timber stud, and minimum 100mm of insulation of class A1 or A2 according to EN13501-1 must be provided within the cavity between the penetration seal and the timber stud.

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

   This UKTA does not cover use of this product as a penetration seal in sandwich panel constructions.

2) The Astro FRA Socket Box Insert may be used to provide a penetration seal with the following specific services, single only:

35mm single plastic back box socket:	for full details see Annex A
35mm single metal back box socket:	for full details see Annex A
35mm double plastic back box socket:	for full details see Annex A
35mm double metal back box socket:	for full details see Annex A
47mm single plastic back box socket:	for full details see Annex A
47mm single metal back box socket:	for full details see Annex A
47mm double plastic back box socket:	for full details see Annex A
47mm double metal back box socket:	for full details see Annex A

3) Apertures for the penetration of sockets require separation of minimum 200mm.

4) The provisions made in this UK Technical Assessment are based on an assumed working life of the Astro FRA Socket Box Insert of 25 years, provided that the conditions laid down in the manufacturer's 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 manufacturer or the Technical Assessment Body but should be regarded as an economically reasonable working life that is compatible with the expected working life of the works.

5) Use Category:

The use category of the Astro FRA Socket Box Insert is Type Z_1.

Type Z_1: 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.

Products that meet the requirements for Type Z_1, also mee the requirements for Type Z_2.

Type Z_2: intended for uses in internal conditions with humidity lower 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

Essential characteristics, method of verification and their performance

Product Type: Socket Box Insert	**Intended Use: Penetration Seal**	
Assessment Method	**Essential Characteristic**	**Product Performance**
BWR 2 Safety in case of fire		
EN 13501-1	Reaction to fire	Class E
EN 13501-2	Resistance to fire	Annex A
BWR 3 Hygiene, health and environment		
EN 1026	Air permeability	No performance assessed
Annex C of EAD 350454-00-1104	Water permeability	No performance assessed
Declaration of conformity by the manufacturer	Content and/or release of dangerous substances	Use categories: IA1, S/W2 Declaration of manufacturer
BWR 4 Safety in use		
EOTA TR 001	Mechanical resistance and stability	No performance assessed
	Resistance to impact/movement	No performance assessed
	Adhesion	No performance assessed
2.2.9 of EAD 350454-00-1104	Durability	Type Z_1
BWR 5 Protection against noise		
EN ISO 10140 & EN ISO 717-1	Airborne sound insulation	Rw (C;Ctr)= 67 dB (-2; -6)
BWR 6 Energy economy and heat retention		
EN 12664 / 12667 / 12939	Thermal properties	No performance assessed
EN ISO 10456	Water vapour permeability	No performance assessed

3.1 Safety in case of fire (BWR 2)

3.1.1 Reaction to fire

The Astro FRA Socket Box Insert has been tested in accordance with EN ISO 11925-2: 2020 and classified in accordance with EN 13501-1:2018. The product in relation to its reaction to fire behaviour is classified as **E** for construction applications.

3.1.2 Resistance to fire

The Astro FRA Socket Box Insert has been tested in accordance with EN 1366-3: 2009 and EN1366-3: 2021 installed within apertures in flexible walls (drywalls).

For details of classification for sockets covered see Annex A.

The seals may only be penetrated by the services listed in Annex A. Other parts or support constructions must not penetrate the seal.

For details of suitable wall constructions see Annex A.

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

3.2 Hygiene, health and the environment (BWR 3)

3.2.1 Content, emission and/or release of dangerous substances.

The Manufacturer has provided a Material Safety Data Sheet according to Regulation 1907/2006/EC and a declaration that the Astro FRA Socket Box Insert is in compliance with Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Confirmation has further been declared that toxic, carcinogenic, toxic for reproduction and mutagenic chemical substances of category 1 and 2 ≥ 0.1 % are not used for Astro FRA Socket Box Inserts and that all other dangerous chemical substances have been considered for the classification of the product according to the Regulation 1272/2008/EC (classification, labelling and packaging of substances and mixtures, including amendments).

In addition to the specific clauses relating to dangerous substances contained in this UK Technical Assessment, there may be other requirements applicable to the products falling within its scope (e.g. transposed UK 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 (BWR 4)

3.3.1 Durability

The Astro FRA Socket Box Insert component materials have been tested to determine their use category and the results of the tests have demonstrated:

The Astro FRA Socket Box Insert has a use category of Z_1 - 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 (BWR 5)

3.4.1 Airborne sound insulation

The Astro FRA Socket Box Insert has been tested for airborne sound insulation in accordance with BS EN ISO 140-3 and BS EN ISO 717-1.

The testing showed no relative / significant increase or reduction in airborne sound insulation when sockets were protected by Astro FRA Socket Box Inserts.

Airborne sound insulation rating of the partition achieved:

Rw (C;Ctr)=67 dB (-2; -6)

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

According to the Statutory Instrument 2019 No. 465 – made 5th March 2019 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and coming into force on exit day and Statutory Instrument 2020 No. 1359 – made 26th November 2020 and cited as the Construction Products (Amendment etc.) (EU Exit) Regulations 2020 and coming into force immediately before the 2019 Regulations come into force, on the procedure for attesting the conformity of construction products as regards fire stopping, fire sealing and fire protective products, published as 'Pre-Exit' European Assessment Documents, (see https://www.gov.uk/guidance/pre-exit-european-assessment-documents-construction-products), the system of assessment and verification of constancy of performance (see Annex V to Construction Products Regulation 2011 as amended by the Construction Products (Amendment etc.) (EU Exit) Regulations 2019 and the Construction Products (Amendment etc.) (EU Exit) Regulations 2020) given in the following table(s) apply.

Product(s)	Intended use(s)	Level(s) or class(es)	System
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 UK Technical Assessment.

The factory production control shall be in accordance with the Control Plan of 10/07/2023 relating to the UK Technical Assessment 0843-UKTA-24/0047 issued on 20/11/2024 which is part of the technical documentation of this UK 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.

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.
- Services which the penetration seal is suitable, type and properties of the services like material, diameter, thickness etc. in case of pipes including insulation materials; necessary/allowed supports/fixings (e.g. pipe trays)

(b) Installation instruction:

- Steps to be followed
- Procedure in case of retrofitting
- Stipulations on maintenance, repair and replacement

Issued on: 8th September 2025

Report by:



C. Sweeney
Senior Project Engineer
Built Environment
For and on behalf of UL International (UK) Ltd.

Reviewed by:



C. Johnson
Senior Staff Engineer
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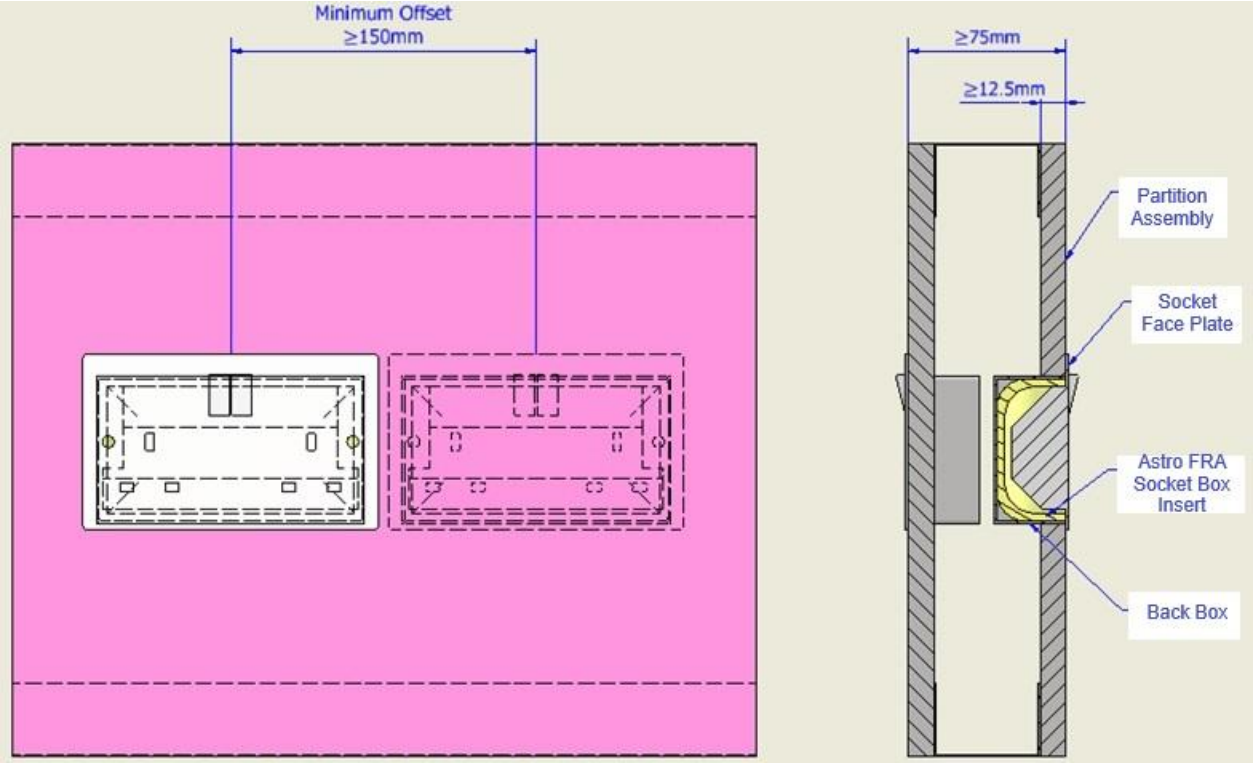
ANNEX A RESISTANCE TO FIRE CLASSIFICATION – ASTRO FRA SOCKET BOX INSERT

Flexible wall constructions with wall thickness of minimum 75 mm

Cable penetration seals with 3.5 mm thick Astro FRA Socket Box Insert in double sided socket box

Penetration Seal: Double sided socket boxes screw fixed to caddy straps fitted flush with the face of the plasterboard with a minimum horizontal offset of 150 mm, protected by Astro FRA Socket Box Inserts.

Construction details:



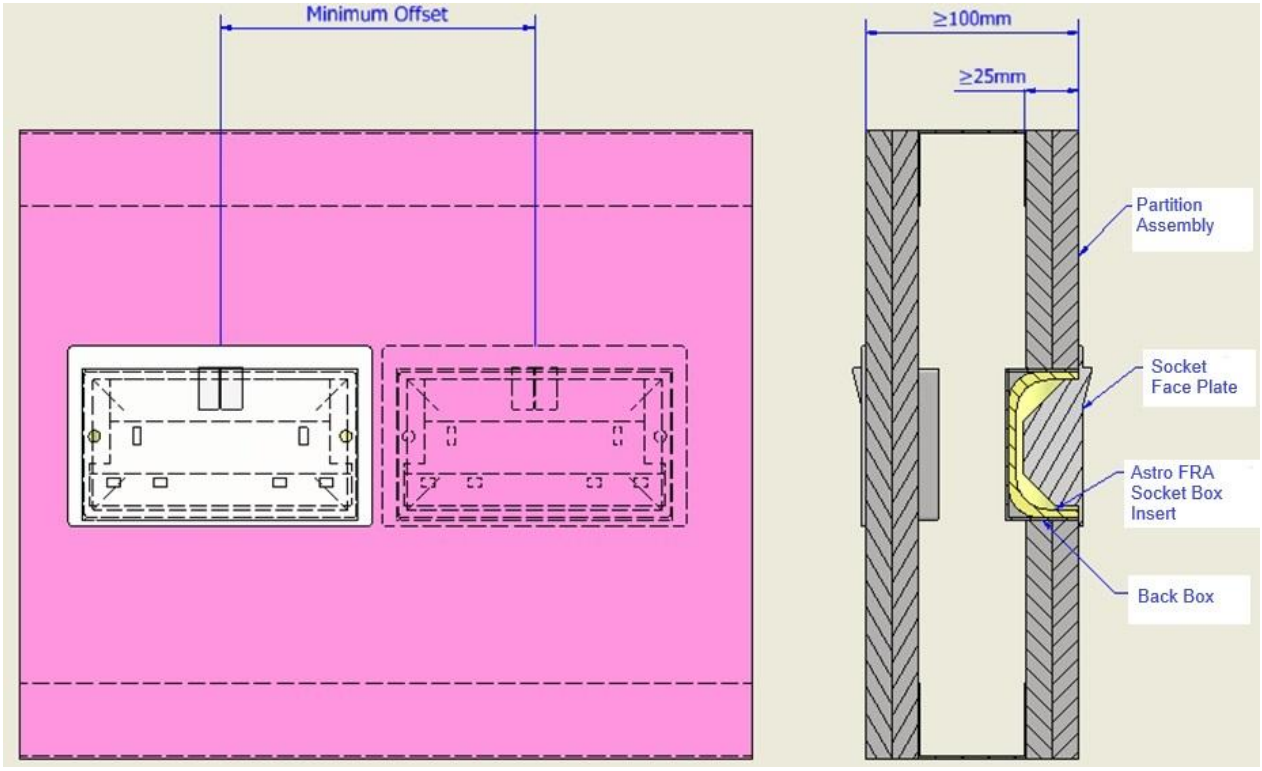
Double side penetration seal with cables in socket boxes

Services	Socket box [2]	Astro FRA Socket Box Insert	Aperture	Cavity Insulation Required	Minimum Offset [1]	Back Box Position in Wall [3]	Classification
Up to 2no.Twin and earth cables up to 2.5 mm^2	Single or double, plastic back-box and face plate, maximum 132 mm wide x 72 mm high x 47 mm deep.	Socket box inserts, 3.5 mm thick, fully lines the back box	Maximum 132 mm wide x 72 mm high	No	150 mm	Flush	**EI 30**
	Single or double, steel back-box and plastic face plate, maximum 132 mm wide x 72 mm high x 47 mm deep.			No	150 mm	Flush	**EI 60**

1. 'Minimum Offset' relates to position of socket boxes either side of the wall, e.g., 150mm means the sockets on one side of the wall must be horizontally offset by a minimum 150mm compared to the socket on the other side of the wall.
2. Plastic Pattress Boxes must be fitted flush with front face of outer plasterboard layer.
3. Metal Back Boxes can be fitted flush or recessed to the maximum stated in the above table.
4. Cable entry tested with either pre-made tight fitting hole or pre-slitting of Socket Box Insert to allow retrofitting around existing cables.
5. Partition must be of the same or higher fire resistance classification in accordance with EN 13501-2 faced on each side with a minimum of one layer of ≥12.5mm thick Gypsum boards in accordance with EN520.

Flexible wall constructions with wall thickness of minimum 100 mm

Cable penetration seals with 3.5 mm thick Astro FRA Socket Box Insert in double sided socket box

Penetration Seal: Double sided socket boxes screw fixed or clamped to, and fitted flush with, the plasterboard or recessed from the face of the plasterboard and fixed to a plasterboard packer. Installed back-to-back or with a minimum horizontal offset of 150 mm, protected by Astro FRA Socket Box Inserts. See classification table
Construction details: 

Classification table below

Double side penetration seal with cables in socket boxes

Services	Socket box [3]	Astro FRA Socket Box Insert	Aperture	Cavity Insulation Required	Minimum Offset [1,2]	Back Box Position in Wall [4,5]	Classification
Up to 3no. Twin and earth cables up to 2.5 mm^2	Single, plastic back-box and face plate, maximum 70 mm wide x 70 mm high x 47 mm deep.	Socket box inserts, 3.5 mm thick, fully lines the back box	Maximum 70 mm wide x 70 mm high	No	150 mm	Flush	**EI 120**
	Double, plastic back-box and face plate, maximum 130 mm wide x 70 mm high x 47 mm deep.		Maximum 130 mm wide x 70 mm high	No	150 mm	Flush	**EI 90**
	Double, plastic back-box and face plate, maximum 132 mm wide x 72 mm high x 47 mm deep.		Maximum 144 mm wide x 84 mm high	Yes [9]	150 mm	Flush	**EI 120**
	Single or double, plastic back-box and face plate, maximum 143 mm wide x 83 mm high x 35 mm deep.		Maximum 144 mm wide x 84 mm high	Yes [9]	0 mm (Back-to-back)	Flush	**E 120** **EI 90**
	Single or double, metal back-box and plastic face plate, maximum 130 mm wide x 70 mm high x 47 mm deep.		Maximum 130 mm wide x 70 mm high	No	0 mm (Back-to-back)	Flush	**E 120** **EI 90**
	Single or double, metal back-box and plastic face plate, maximum 130 mm wide x 70 mm high x 47 mm deep.			No	150 mm	12.5 mm Recessed, fixed to plasterboard packer	**EI 90**

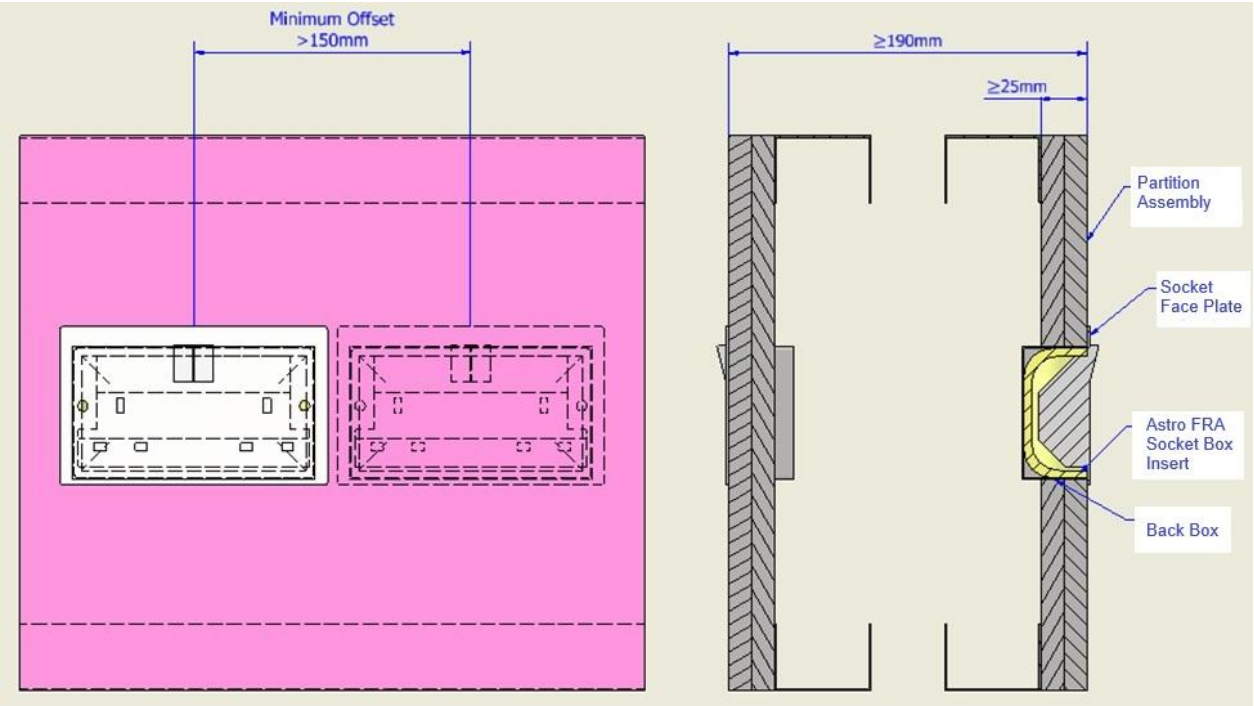
1. 'Minimum Offset' relates to position of socket boxes either side of the wall, e.g., 150mm means the sockets on one side of the wall must be horizontally offset by a minimum 150mm compared to the socket on the other side of the wall.
2. 'Minimum Offset' of 0mm means that the socket boxes may be installed directly back-to-back either side of the partition or horizontally by any spacing >0mm.
3. Plastic Pattress Boxes must be fitted flush with front face of outer plasterboard layer.
4. Steel Back Boxes can be fitted flush or recessed to the maximum stated in the above table.
5. Where Steel Back Boxes are recessed, the Socket Box Insert may be fitted at any position from the front face of plasterboard or recessed to the back of the back box.
6. Cable entry tested with either pre-made tight fitting hole or pre-slitting of Socket Box Insert to allow retrofitting around existing cables.
7. Partition must be of the same or higher fire resistance classification in accordance with EN 13501-2 with 2x12.5mm thick Gypsum boards in accordance with EN520.
8. Cavity insulation must be min. 50mm thick / min. 100kg/m^3 / stone wool.

Flexible wall constructions with wall thickness of minimum 190 mm

Cable penetration seals with 3.5 mm thick Astro FRA Socket Box Insert in double sided socket box

Penetration Seal: Double sided socket boxes screw fixed to caddy strap and fitted flush with or recessed from the face of the plasterboard, with a minimum horizontal offset of 150 mm, protected by Astro FRA Socket Box Inserts. See classification table

Construction details:

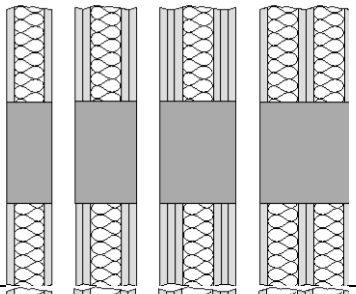
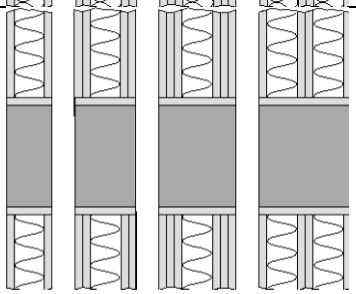


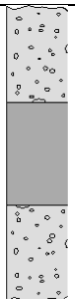
Double side penetration seal with cables in socket boxes

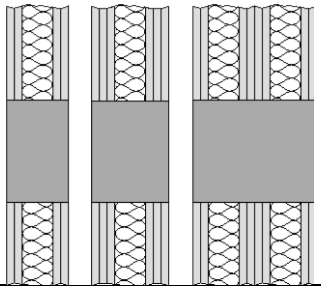
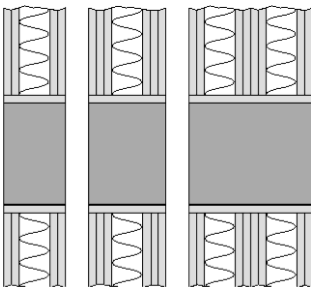
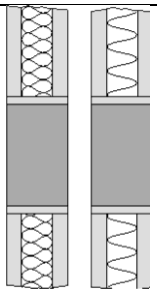
Services	Socket box	Astro FRA Socket Box Insert [3]	Aperture	Cavity Insulation Required [7]	Minimum Offset [1]	Back Box Position in Wall [2,3]	Classification
Up to 7no. Twin and earth cables up to 2.5 mm^2	Single or double, steel back-box and plastic face plate, maximum 132 mm wide x 72 mm high x 47 mm deep.	Socket box inserts, 3.5mm thick, fully lines the back box	Maximum 132 mm wide x 72 mm high	No	150 mm	Flush	**EI 60**
		Socket box inserts, 3.5 mm thick, fully lines the back box or is fitted flush with the plasterboard leaving a gap to the back of the back-box		No	150 mm	20mm Recessed	**EI 60**

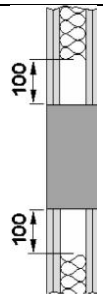
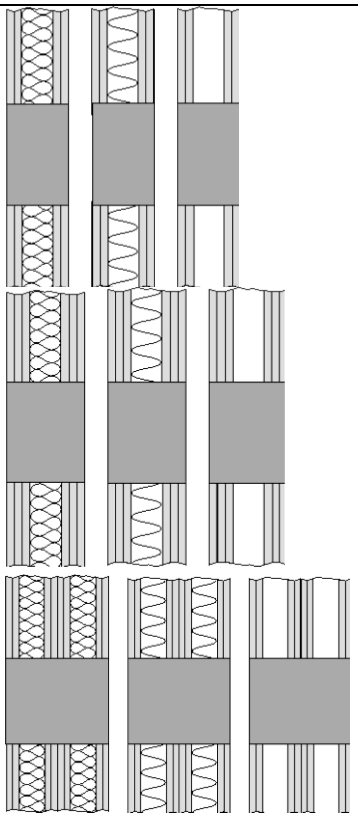
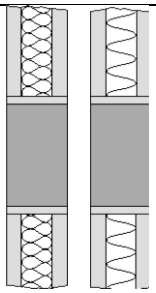
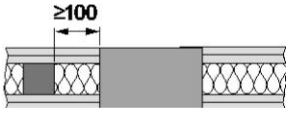
1. 'Minimum Offset' relates to position of socket boxes either side of the wall, e.g., 150mm means the sockets on one side of the wall must be horizontally offset by a minimum 150mm compared to the socket on the other side of the wall.
2. Metal Back Boxes can be fitted flush or recessed to the maximum stated in the above table.
3. Where Metal Back Boxes are recessed, the Socket Box Insert may be fitted at any position from the front face of plasterboard or recessed to the back of the back box.
4. Cable entry tested with either pre-made tight fitting hole or pre-slitting of Socket Box Insert to allow retrofitting around existing cables.
5. Partition must be of the same or higher fire resistance classification in accordance with EN 13501-2 with 2x12.5mm thick Gypsum boards in accordance with EN520.
6. Testing was carried out both with and without cavity insulation in place behind the sockets. Fire Resistance of EI60 was achieved in either scenario. Therefore, insulation is not required to achieve the fire rating. For info, the specification of insulation tested was 160mm thick / min. 9kg/m^3 glass wool.

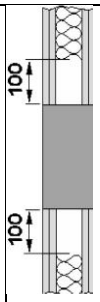
Table 5 — Field of direct application rules for double-sided flexible wall constructions

<table>
<tr><th colspan="2">Construction tested</th><th colspan="2">Constructions covered (vertical section except stated otherwise)</th></tr>
<tr><td colspan="2"></td><td colspan="2">NOTE Rules for the aperture framing are given at the end of the table</td></tr>
<tr><td rowspan="4">1) As given in Table 2 for intended resistance to fire classification EI 30</td><td rowspan="4"></td><td>a) Flexible wall constructions with the same or higher number of board layers of the same or higher overall lining thickness on each side of the wall and the same insulation as tested</td><td></td></tr>
<tr><td>b) Flexible wall constructions with the same or higher number of board layers of the same or higher board thickness as tested on each side of the wall, with an aperture framing and insulation of any type</td><td></td></tr>
<tr><td>c) Flexible wall constructions with timber studs, constructed with at least one layer of boards, no part of the penetration seal closer than 100 mm to any stud or nogging piece, the cavity closed between the penetration seal and the stud/nogging piece with minimum 100 mm of insulation of class A1 or A2 in accordance with EN 13501-1</td><td>

horizontal section</td></tr>
<tr><td>d) Rigid wall constructions in accordance with 13.3.2.4</td><td></td></tr>
</table>

Construction tested		Constructions covered (vertical section except stated otherwise)	
2) As given in Table 2 for intended resistance to fire classification EI 60 to EI 120		a) Flexible wall constructions with the same or higher number of board layers of the same or higher board thickness on each side of the wall and the same insulation as tested	
		b) Flexible wall constructions with an aperture framing, with the same or higher number of board layers of the same or higher board thickness as tested on each side of the wall, with insulation of any type	
		c) Flexible wall constructions with an aperture framing with a reduced number of board layers but the same or higher overall lining thickness as tested, with insulation of any type	
		d) Flexible wall constructions with timber studs, constructed with at least the same number of layers as given in Table 2, no part of the penetration seal closer than 100 mm to any stud or nogging piece, the cavity closed between the penetration seal and the stud/nogging piece with minimum 100 mm of insulation of class A1 or A2 in accordance with EN 13501-1	 horizontal section
		e) Rigid wall constructions in accordance with 13.3.2.4	

Construction tested		Constructions covered (vertical section except stated otherwise)	
3)The insulation around the aperture was removed in accordance with 7.2.2.1.2.1 in the test		a) Flexible wall construction as tested	
		b) Flexible wall constructions with the same or higher number of board layers of the same or higher board thickness on each side of the wall, with insulation of any type or without insulation	
		c) Flexible wall constructions with an aperture framing with a reduced number of board layers but the same or higher board thickness on each side of the wall as tested, with insulation of any type	
		d) Flexible wall constructions with timber studs, constructed with at least the same number of layers as given in Table 2, no part of the penetration seal closer than 100 mm to any stud or nogging piece, the cavity closed between the penetration seal and the stud/nogging piece with minimum 100 mm of insulation of class A1 or A2 in accordance with EN 13501-1	 horizontal section

Construction tested		Constructions covered (vertical section except stated otherwise)	
3)The insulation around the aperture was removed in accordance with 7.2.2.1.2.1 in the test		e) Rigid wall constructions in accordance with 13.3.2.4	