UL-EU CERTIFICATE

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UL-EU-01307-EN

Issue date
10-07-2024

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1

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Expiry date
09-07-2034

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Certificate Holder:
Greentech Thermal Insulation Products Mfg Co LLC

Address:
PO Box 3350
New Industrial Area
Umm AL Quwain
United Arab Emirates

Product:
HEATSHIELD P250

Places of production:
A/027

Standard:
EAD 350454-00-1104, September 2017

Authorised Signatory:

Chris Johnson
Issued by UL International (UK) Ltd

This is to certify that representative samples of the Certified Product listed above have been investigated by Underwriters Laboratories to the Standard(s) indicated on this Certificate, in accordance with the UL Global Services Agreement and the UL-EU Mark Service Terms and Conditions ("Agreement"). The Certificate Holder is entitled to use the UL-EU Mark for the Certified Product listed on the certificate and manufactured at the production site(s) listed, in accordance with the terms of the Agreement. Only those products bearing the UL-EU Mark for Europe should be considered as being covered by UL's UL-EU Mark Service. This Certificate shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.

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This certificate relates to the use of HEATSHIELD P250 for fire stopping where plastic socket boxes and cables penetrate flexible walls, rigid walls and rigid floors. The detailed scope is given in pages 4 to 12 of this Certificate. This shows the thickness and acceptable dimensions, substrates and orientations required to provide fire resistance periods of up to 120 minutes (EI 120).

The product is certificated on the basis of:

i) Inspection and surveillance of factory production control by UL
ii) Fire resistance test data in accordance with EN 1366-3:2021
iii) Classification in accordance with EN 13501-2:2016
iv) Durability and Serviceability as defined in EAD 350454-00-1104, September 2017

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I. SPECIFIC PARTS OF THE UL-EU CERTIFICATION

1 Technical description of the product

1) HEATSHIELD P250 is
   i) a flexible putty used to form a penetration seal around cables to reinstate the fire resistance performance of wall and floor constructions, where they have been provided with apertures for the penetration of services.
   ii) a putty pad used to form a penetration seal to reinstate the fire resistance performance of wall constructions, where they have been provided with apertures for socket boxes.

2) The HEATSHIELD P250 is supplied as flexible putty in packs of 500 g and 1 kg and as 3.5 mm thick putty pad. The HEATSHIELD P250 flexible putty is applied into the aperture in the separating element/elements and around the service or services, to a specified depth with or without mineral fibre insulation backing material.

3) Greentech Thermal Insulation Products Mfg Co LLC submitted a written declaration that HEATSHIELD P250 does not contain substances which have to be 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. An emission report has also been provided.

   In addition to the specific clauses relating to dangerous substances contained in this Certificate, 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.

4) The use category of HEATSHIELD P250 in relation to BWR 3 (Hygiene, health and environment) is IA1, S/W2

2 Specification of the intended uses of the product in accordance with the applicable European Assessment Document (Hereinafter EAD): EAD 350454-00-1104: 2017

Detailed information and data is given in Annex A.

The intended use of system HEATSHIELD P250 is to reinstate the fire resistance performance of flexible wall constructions, rigid wall constructions and rigid floor constructions where they are penetrated by various electrical cables and socket boxes.

1) The specific elements of construction that the system HEATSHIELD P250 may be used to provide a penetration seal in, are as follows:

Flexible walls:	The wall must have a minimum thickness of 135 mm and comprise steel or timber studs* lined on both faces with minimum 2 layers of 15 mm thick boards. The insulation of the flexible wall shall be nominal 60 mm thick with a density of 100 kg/m^3. Flexible wall solutions may also be used in rigid walls, with a minimum density of 350 kg/m^3.
Rigid walls:	The wall must have a minimum thickness of 125 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 450 kg/m^3.
Rigid floors:	The floor must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m^3.

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* no part of the penetration seal may 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 must be 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 HEATSHIELD P250 may be used to provide a penetration seal for specific services in specific supporting constructions and substrates (for details see Annex A).

3) The first support (service support construction) for penetrants in flexible and rigid walls has to be at maximum 450 mm (measured from the surface of the separating element). In rigid floors the first support has to be at maximum 250 mm from top surface of floor.

4) The provisions made in this Certificate are based on an assumed working life of the HEATSHIELD P250 of 10 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.

5) Type Z_1: intended for uses in internal conditions with humidity equal to or higher than 85% RH excluding temperatures below 0°C, without exposure to rain or UV. Since the requirements for Type Z_1 are met, also the requirements for Type Z_2 are fulfilled.

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

Product-type: Putty		Intended use: Penetration Seal
Basic requirement for construction work	Essential characteristic	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 determined
EAD 350454-00-1104, Annex C	Water permeability	No performance determined
Declaration of manufacturer & EN 16516	Content, emission and/or release of dangerous substances	Use categories: IA1, S/W2 Declaration of manufacturer
BWR 4 Safety in use		
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
EAD 350454-00-1104, Clause 2.2.9	Durability	Z_1
BWR 5 Protection against noise		
EN 10140-1,2,4,5/ EN ISO 717-1	Airborne sound insulation	No performance determined
BWR 6 Energy economy and heat retention		
EN 12664, EN 12667, EN 12939, EN ISO 8990, EN ISO 6946, EN ISO 14683, EN ISO 10211, EN ISO 10456	Thermal properties	No performance determined
EN ISO 12572, EN 12086, EN ISO 10456	Water vapour permeability	No performance determined

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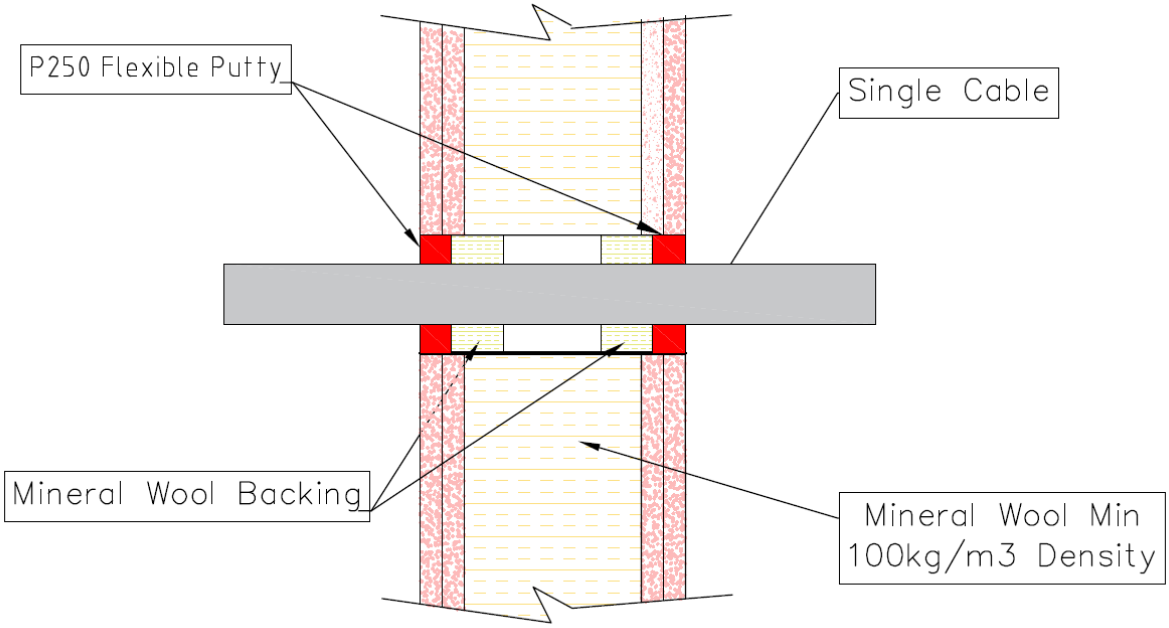
ANNEX A – Resistance to Fire Classification – HEATSHIELD P250

A.1 Flexible wall constructions according to 1.2.1 with wall thickness of minimum 135 mm

A.1.1 Double sided penetration seal with cables

Penetration Seal: Cables (single) centred within the aperture and sealed with HEATSHIELD P250 flexible putty. Minimum separation between penetration seals of 100 mm.

Construction details:



A.1.1.1

Services	Opening size [mm]	P250 sealant details	Backing material	Annular space	Classification
Electrical cable N2XH (5x1.5 mm^2) with a maximum outer diameter of 14 mm	Ø ≤ 71	20 mm depth	30 mm deep stone wool (ρ ≥ 50 kg/m^3) recessed 20 mm into opening	30 mm	**E 120** **EI 120**
Single electrical cable of H07RN-F (4x95 mm^2) with a maximum outer diameter of 60 mm		15 mm wide x 20 mm deep formed into rope and applied into annular space and as bead around penetrant	30 mm deep stone wool (ρ ≥ 50 kg/m^3) recessed 20 mm into opening	5-6 mm	**E 120** **EI 120**

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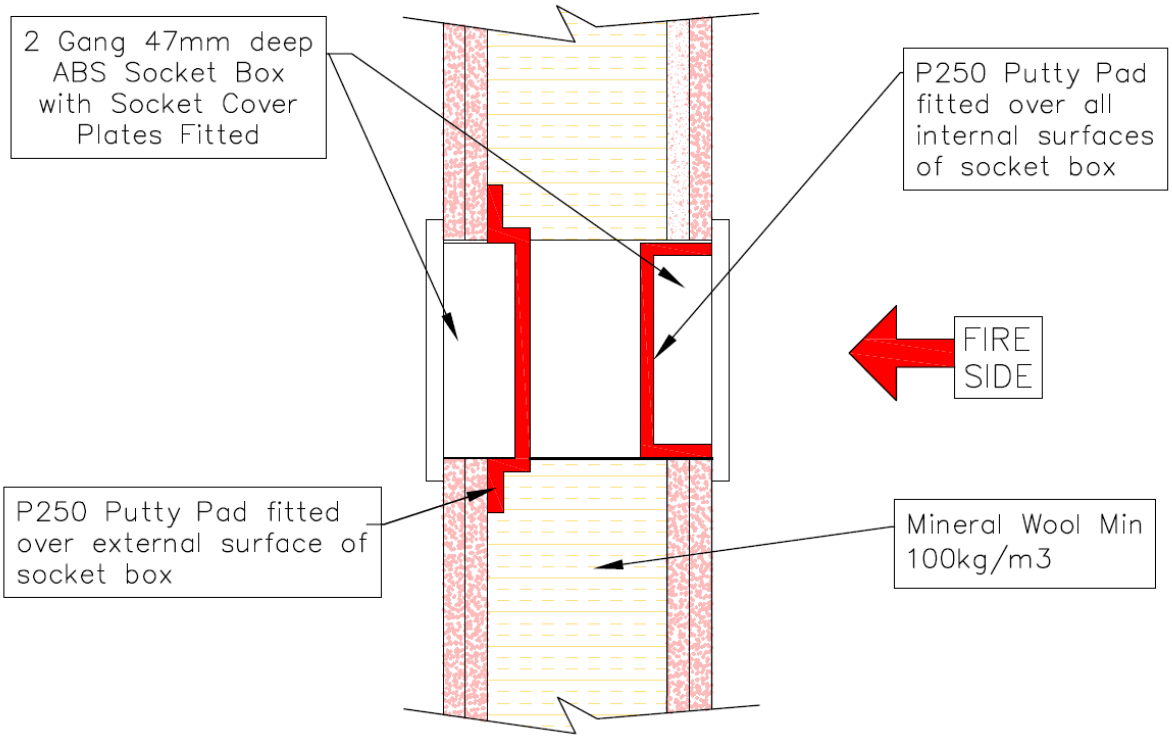
A.1.2 Double sided penetration seals with plastic socket box (Configuration 1)

Penetration Seal: Plastic socket boxes placed side-by-side with a distance of 41 mm, or further apart protected with 3.5 mm thick HEATSHIELD P250 putty pads. Socket boxes installed into opening according to installation instructions. Minimum separation between penetration seals of 100 mm.

Construction details:



A.1.2.1

Socket box	P250 Putty pad details		Aperture [mm]	Classification
	Non-fire side	Fire side		
Scolmore International Ltd. (WA107P)- 2 gang lining box, with outer flange size of 143mm x 83mm x 47mm in conjunction with Omega 13A 2 Gang switched socket (OMFL213SS)	P250 Putty Pad fitted over the back of the socket with an overlap of 10 mm onto gypsum board	P250 Putty Pad fitted inside socket box	137 mm wide x 75 mm high	**E 90** **EI 90**

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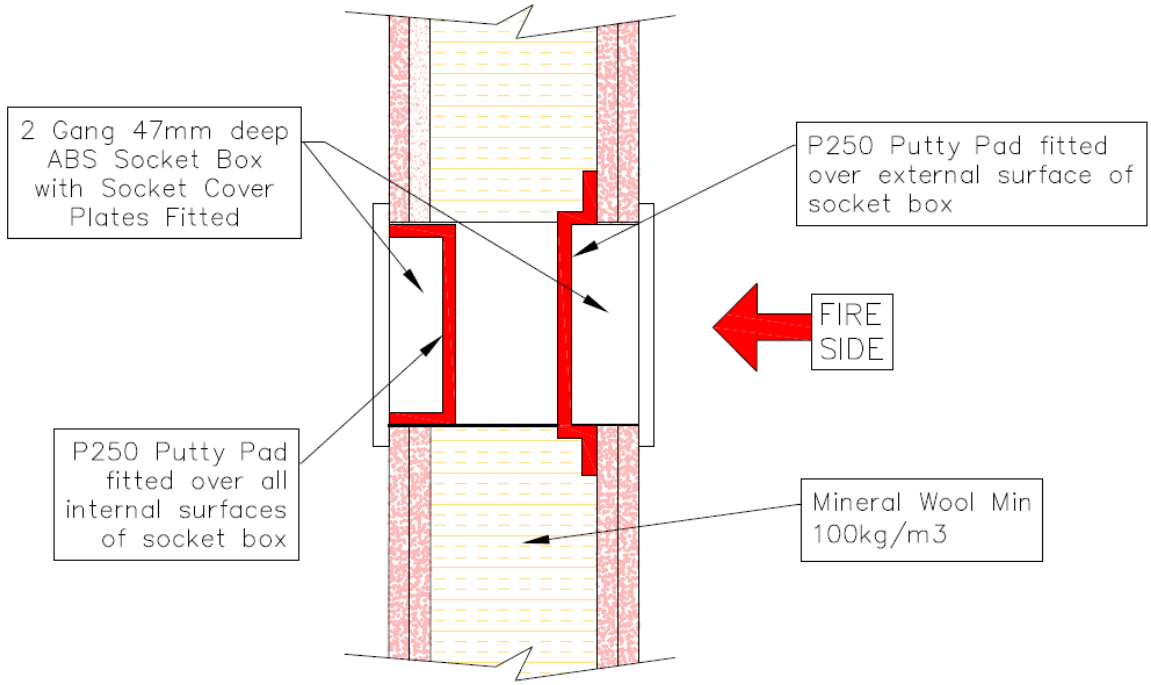
A.1.3 Double sided penetration seals with plastic socket box (Configuration 2)

Penetration Seal: Plastic socket boxes placed side-by-side with a distance of 41 mm, or further apart protected with 3.5 mm thick HEATSHIELD P250 putty pads. Socket boxes installed into opening according to installation instructions. Minimum separation between penetration seals of 100 mm.

Construction details:



A.1.3.1

Socket box	P250 Putty pad details		Aperture [mm]	Classification
	Non-fire side	Fire side		
Scolmore International Ltd. (WA107P)- 2 gang lining box, with outer flange size of 143mm x 83mm x 47mm in conjunction with Omega 13A 2 Gang switched socket (OMFL213SS)	P250 Putty Pad fitted inside socket box	P250 Putty Pad fitted over the back of the socket with an overlap of 10 mm onto gypsum board	137 mm wide x 75 mm high	**E 90** **EI 90**

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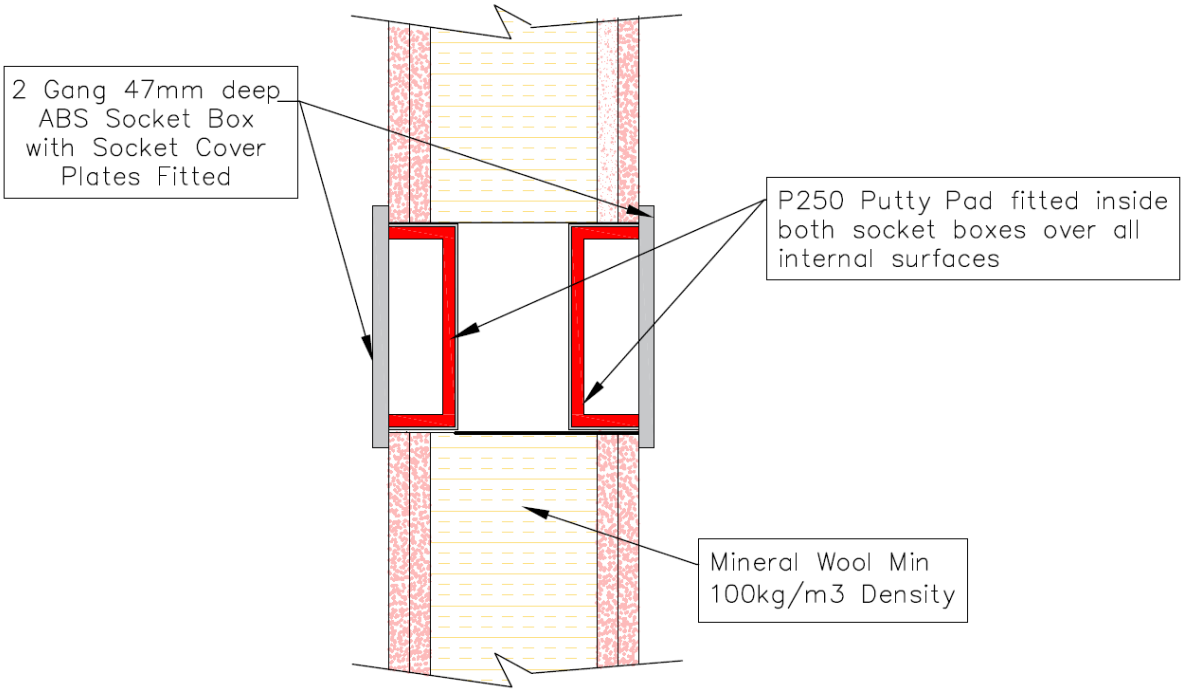
A.1.4 Double sided penetration seals with plastic socket box (Configuration 3)

Penetration Seal: Plastic socket boxes placed side-by-side with a distance of 41 mm, or further apart protected with 3.5 mm thick HEATSHIELD P250 putty pads. Socket boxes installed into opening according to installation instructions. Minimum separation between penetration seals of 100 mm.

Construction details:



A.1.4.1

Socket box	P250 Putty pad details	Aperture [mm]	Classification
Scolmore International Ltd. (WA107P)- 2 gang lining box, with outer flange size of 143mm x 83mm x 47mm in conjunction with Omega 13A 2 Gang switched socket (OMFL213SS)	P250 Putty Pad fitted inside socket box	137 mm wide x 75 mm high	**E 120** **EI 120**

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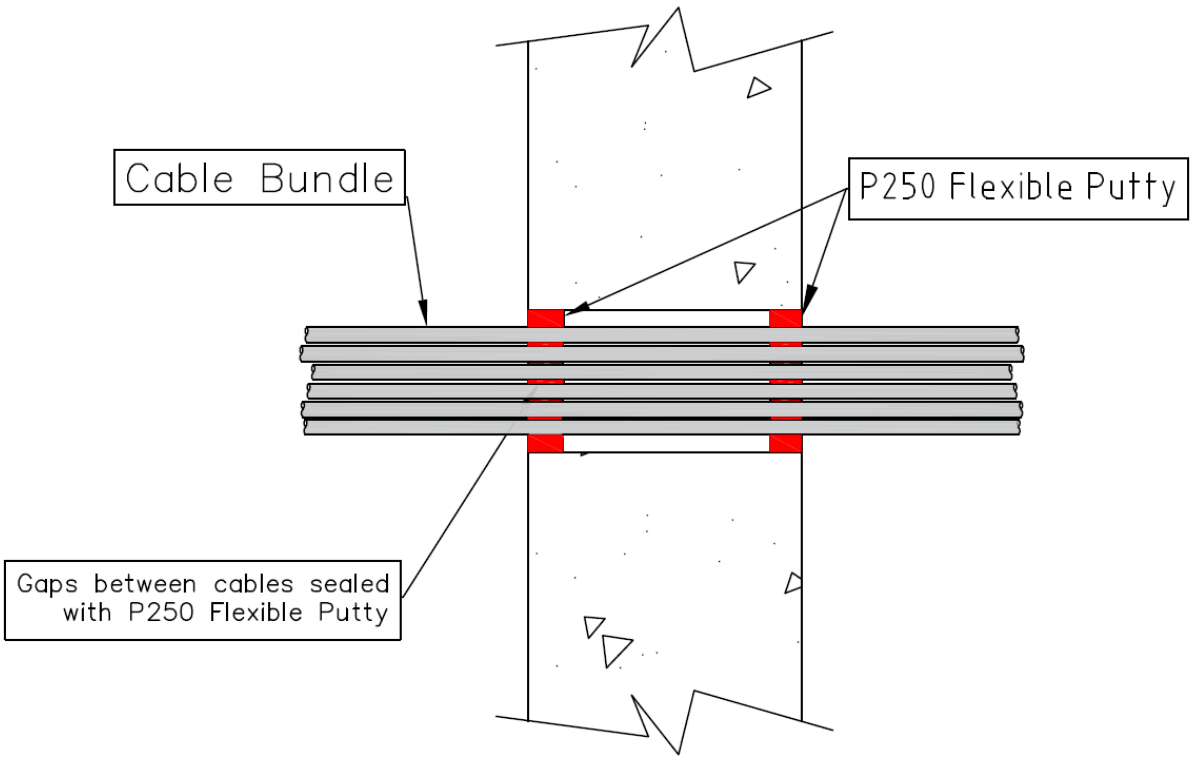
A.2 Rigid wall constructions according to 1.2.1. with wall thickness of minimum 125 mm

A.2.1 Double side penetration seal with cables

Penetration Seal: Cables (single or bundles) centred within the aperture and sealed with HEATSHIELD P250 flexible putty. Minimum separation between penetration seals of 100 mm.

Construction details:



A.2.1.1

Services	Opening size [mm]	P250 sealant details	Annular space	Classification
Electrical cable(s), single or bundle of up to 6 No., of NYM-J (5x2.5 mm^2) with a maximum outer diameter of 14 mm	Ø ≤ 71	20 mm depth flush with both surfaces of wall	20 mm	**E 120** **EI 90**

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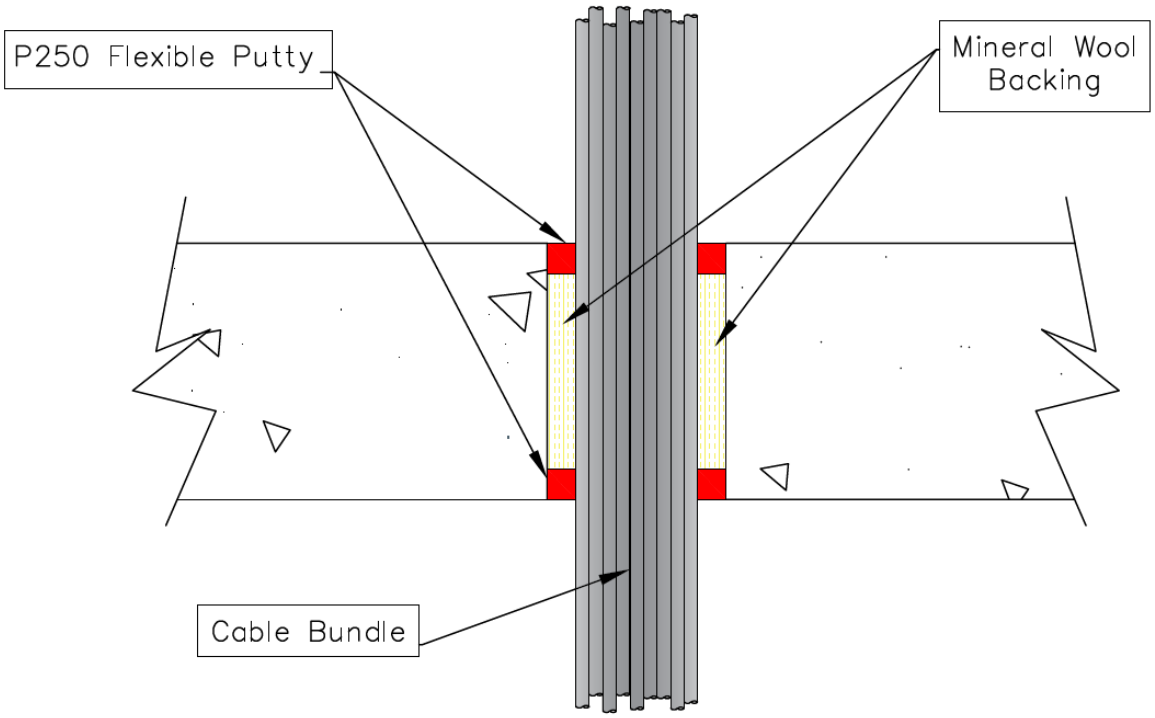
A.3 Rigid floor constructions according to 1.2.1 with floor thickness of minimum 150 mm

A.3.1 Double side penetration seal with cables

Penetration Seal: Cables (single or bundles) centred within the aperture and sealed with HEATSHIELD P250 flexible putty. Minimum separation between penetration seals of 100 mm.

Construction details:



A.3.1.1

Services	Opening size [mm]	P250 sealant details	Backing material	Annular space	Classification
Single electrical cable of H07RN-F (4x95 mm^2) with a maximum outer diameter of 60 mm	Ø ≤ 71	20 mm depth flush with both surfaces of floor	Mineral stone wool (50 kg/m^3) recessed 20 mm from both surfaces of floor into opening	8 mm	**E 120** **EI 120**
Electrical cable(s), single or bundle of up to Ø 90 mm, of Cat-5e Network cable with a maximum outer diameter of 6 mm	Ø ≤ 102			6 mm	**E 120** **EI 120**
Electrical cable(s), single or bundle of up to 10 No., of NYY-J (5x1.5 mm^2) with a maximum outer diameter of 14 mm	Ø ≤ 82			18 mm	**E 120** **EI 120**

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The UL-EU Mark, as displayed below, shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.

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The UL-EU Mark may appear on a label, nameplate, or may be cast, stamped or molded into the product. When appearing on a label or nameplate, the Manufacturer's name or trademark along with a model number are also required on that same label or nameplate. If cast, stamped or molded, the Manufacturer's name or trademark and model number shall also appear elsewhere on the product.

All content shall be in accordance with the details provided on this UL-EU Certificate.

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