

UL-EU CERTIFICATE

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Certificate Holder:

Greentech Thermal Insulation Products Mfg Co LLC

Address:

PO Box 3350
New Industrial Area
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United Arab Emirates

Product:

HEATSHIELD B50 SYSTEM

Places of production:

U/001, U/002

Standard:

EAD 350454-00-1104, September 2017

Authorised Signatory:

A blue ink signature of Chris Johnson.

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shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.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 B50 a coated mineral wool board (HEATSHIELD B50-ST) used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetration of single or multiple services.

The detailed scope is given in pages 4 to 17 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 EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

- 1) HEATSHIELD B50 SYSTEM is a coated mineral wool board (HEATSHIELD B50-ST) used to reinstate the fire resistance performance of wall and floor constructions where they have been provided with apertures for the penetration of single or multiple services.
- 2) HEATSHIELD B50-ST batts are supplied coated on one face with C100, referenced SS (single sided). The board or boards are then cut to allow the penetration of the required services, before being inserted into the aperture in the wall or floor.
- 3) The HEATSHIELD SS B50-ST batts are supplied in standard dimension length of 1200 mm and a minimum width of 500 mm with a nom. thickness of 50 mm.
- 4) The additional component HEATSHIELD C100 is a fire-resistant coating to be brush applied on all contact surfaces on the perimeter of opening prior installation of HEATSHIELD SS B50-ST batts. HEATSHIELD C100 is supplied in liquid form contained within buckets of a size of up to 20 litres.
- 5) The additional component HEATSHIELD S500 is a fire-resistant sealant to be used between penetrants and HEATSHIELD B50-ST batts and is supplied in liquid form contained within 300 ml cartridges and 600 ml foil packs. HEATSHIELD S500 sealant is also applied along the perimeter joint between HEATSHIELD B50-ST batts and substrate by width of min. 10 mm.
- 6) The additional component HEATSHIELD PC120 is a pipe closure device to be used around specific plastic pipes friction fitted into HEATSHIELD B50-ST batts with retaining tabs of pipe collar flush to outer surface of the batt. Prior to installation of HEATSHIELD PC120 the perimeter around the opening on HEATSHIELD B50-ST batt shall be equipped with a bead of 10mm x 10mm of HEATSHIELD S500 sealant.
- 7) Greentech Thermal Insulation Products Mfg Co LLC submitted a written declaration that HEATSHIELD B50 SYSTEM 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 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.

- 8) The use category of HEATSHIELD B50 SYSTEM in relation to BWR 3 (Hygiene, health and environment) is IA1, S/W2



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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 B50 SYSTEM is to reinstate the fire resistance performance of flexible wall constructions, rigid wall constructions and rigid floor constructions where they are penetrated by various metal pipe services with and without combustible insulation, plastic pipes, combustible cable conduits, composite pipes and electrical cables.

- 1) The specific elements of construction that the system HEATSHIELD B50 SYSTEM 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/m³. Flexible wall solutions may also be used in rigid walls, with a minimum density of 350 kg/m³.

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/m³.

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/m³.

* 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 B50 SYSTEM may be used to provide a penetration seal for specific services in specific supporting constructions and substrates (for details see Annex A).
- 3) The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.
- 4) In flexible walls the maximum annular space / area without penetrating item of HEATSHIELD B50 SYSTEM with metal stud framework around the aperture should not exceed 600 mm in height and 400 mm in width.
- 5) All contact surfaces between HEATSHIELD B50-ST batt and the substrate must be coated with min. 0.5 mm thick C100 Coating prior to installation of batts. All perimeter joints sealed with min. 10 mm bead of HEATSHIELD S500 sealant after installation of SS B50-ST batts and an overlap of the penetration seal onto the concrete substrate with C100 Coating (25 mm wide x 0.5 mm thick) shall be applied by brush.
- 6) 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.
- 7) The designation U/U, C/U, U/C or C/C indicates whether or not the product under test are capped during the fire test.

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The first letter refers to the situation in the furnace and the second to the situation outside the furnace (see table).

Test condition	Configuration	
	Inside the furnace	Outside the furnace
U/U	Uncapped	Uncapped
C/U	Capped	Uncapped
U/C	Uncapped	Capped
C/C	Capped	Capped

The tests carried out with uncapped ends (U/U) correspond to the most unfavorable situation, since the fire can spread more easily because the two ends are open.

The results of these tests may therefore be applied in all situations (U/U, C/U, U/C and C/C).

The C/U tests may be used in the following situations: C/U, U/C and C/C. The U/C tests may in turn be used for situations U/C and C/C, while the C/C tests may only be used in the C/C situation.

- 8) Where PVC conduits are mentioned in Annex A, this includes PVC-U rigid conduits according to EN 61386-1 and EN 61386-21. Where PVC pipes are mentioned in Annex A, this includes PVC-U pipes according to EN 1329-1, EN 1453-1, EN ISO 15493 and EN ISO 1452-2 and PVC-C according to EN 1566-1, EN ISO 15493 and EN ISO 15877-2.
- 9) The provisions made in this European Technical Assessment are based on an assumed working life of the HEATSHIELD B50 SYSTEM 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.
- 10) Type Z₁: 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 Z₁ are met, also the requirements for Type Z₂ are fulfilled.

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

Product-type: Coated mineral wool slabs		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



ANNEX A – Resistance to Fire Classification – HEATSHIELD B50 SYSTEM

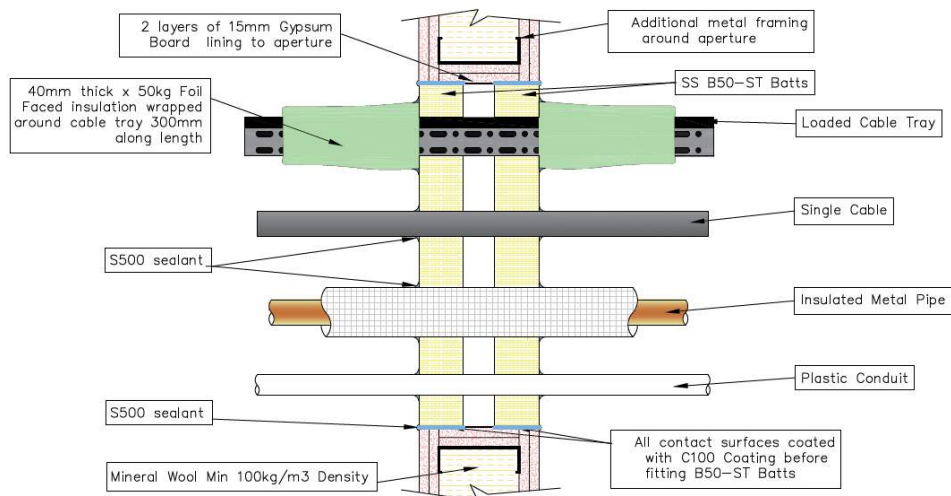
A.1 Flexible wall constructions according to 1.2.1 with wall thickness of minimum 135 mm

A.1.1 Double sided penetration seal with multiple penetrants

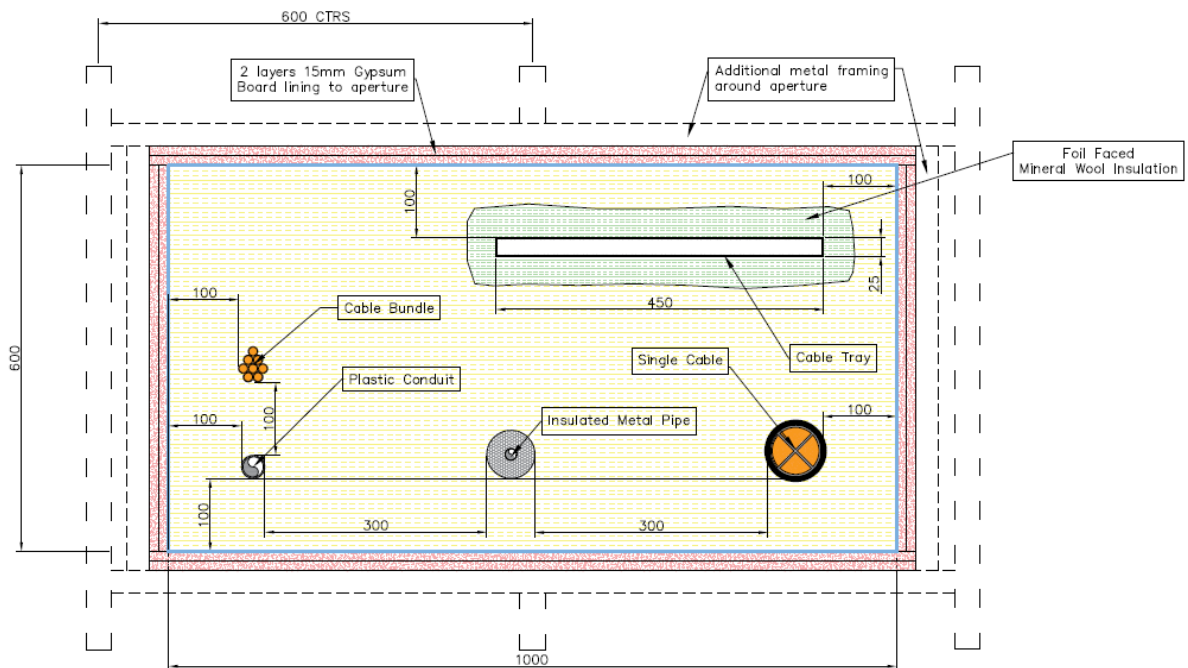
Penetration Seal: Multiple penetrations within the aperture and sealed with HEATSHIELD B50 SYSTEM. HEATSHIELD SS B50-ST batt applied flush to both surfaces of wall. Maximum opening size of framed aperture shall be 1000 mm wide x 600 mm high (see details of framing in drawing below). Minimum working clearance between penetrants and between penetrants and aperture shall be as shown in drawing below. Dimensions for minimum working clearances not shown in drawing shall be at least 100 mm. Maximum annular space shall be 350 mm. Minimum separation between penetration seals of 100 mm.

Construction details:

Section view:



Front view:



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A.1.1.1

Services	Max. opening size within HEATSHIELD B50-ST batt	Insulation	B50 SYSTEM seal details	Annular space within HEATSHIELD B50-ST batt	Classification
PVC conduit, Diameter \leq 32 mm, wall thickness 2.5 mm	$\varnothing \leq 32$ mm	N/A	Bead of 10 mm x 10 mm S500 around penetrant	0 mm	E 120-C/C EI 120-C/C
Copper, steel or cast iron pipe up to 15 mm diameter and min. wall thickness of 0.7 mm	$\varnothing \leq 70$ mm	Min. 25 mm thick aluminium foil faced stone wool insulation (CS, 50 kg/m ³)		5 mm	E 120-C/C EI 120-C/C
Single electrical cable of H07RN-F (4x185 mm ²) with a maximum outer diameter of 75 mm	$\varnothing \leq 75$ mm	N/A		≤ 5 mm	E 120 EI 60
Perforated Cable Tray (450 x 25 x 1.1 mm) incl. following cables: - max. 2 No. of H07V-R (1x 95 mm ²) with a maximum outer diameter of 17 mm - max. 2 No. of H07V-R (1x 185 mm ²) with a maximum outer diameter of 23 mm - max. 20 No. of NYY-J (5x 1.5 mm ²) with a maximum outer diameter of 14 mm - max. 20 No. of N2XH (5x1.5 mm ²) with a maximum outer diameter of 14 mm	460 mm wide x 50 mm high	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m ³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500. Interface of insulation to B50-ST batt sealed with 12 mm thick S500.	≤ 10 mm	E 120 EI 120
Electrical cable(s), single or bundle of up to 8 No. of H07RN-F (5x1.5 mm ²) with a maximum outer diameter of 14 mm	$\varnothing \leq 65$ mm	N/A	10 mm thickness of S500 around and between cables	≤ 10 mm	E 120 EI 120



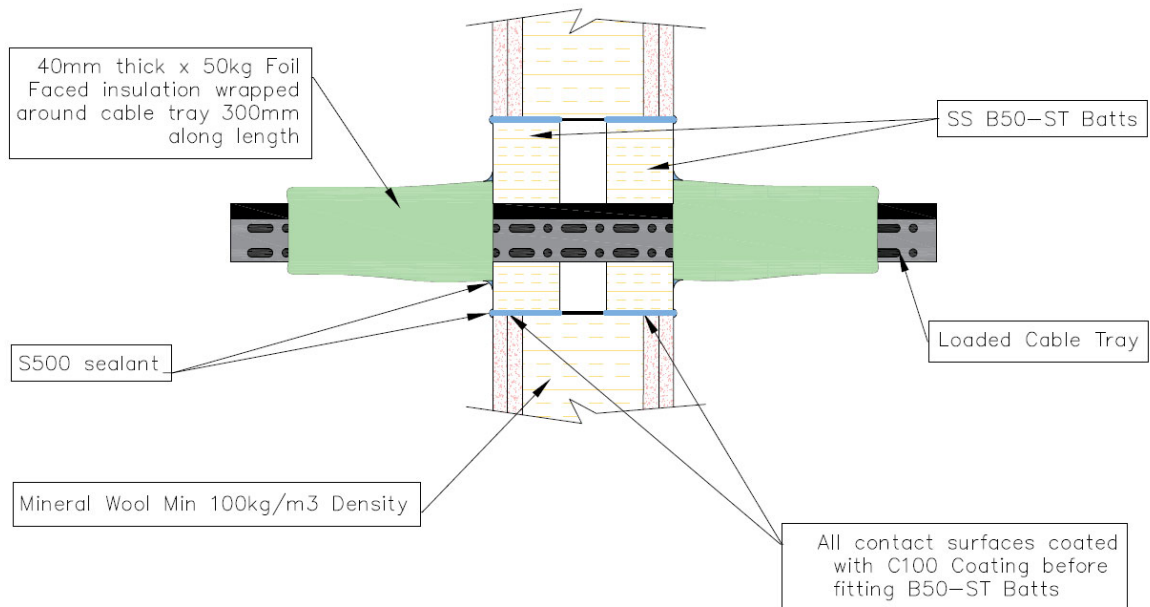
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A.1.2 Double side penetration seal with insulated cable trays

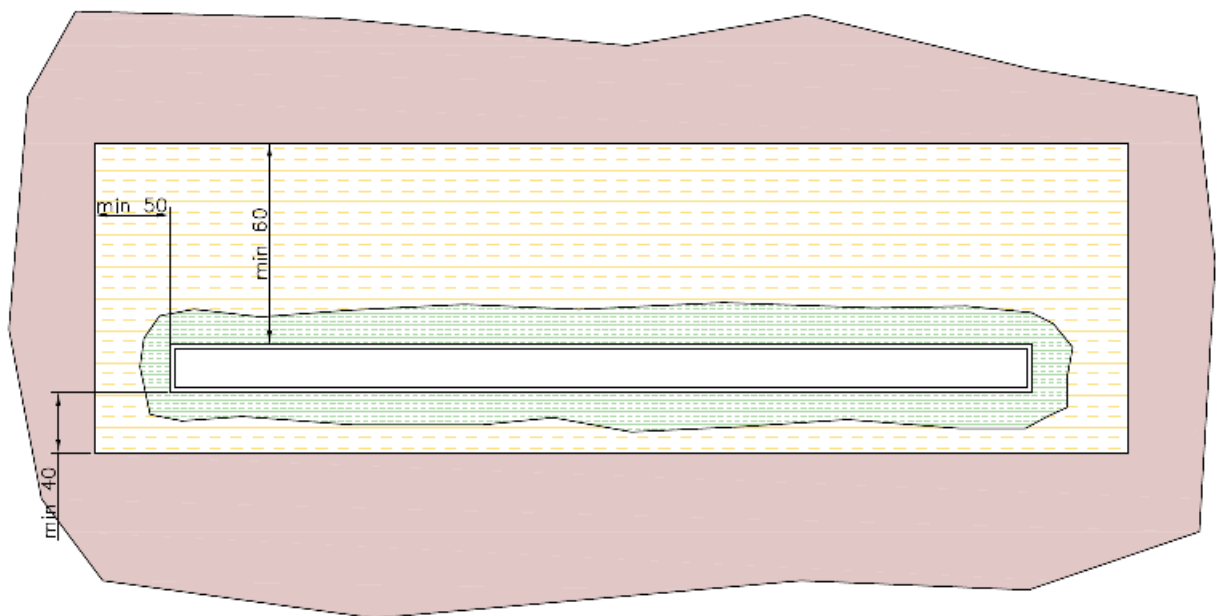
Penetration Seal: Single cable tray with cables within the aperture and sealed with HEATSHIELD B50 SYSTEM. HEATSHIELD SS B50-ST batt applied flush to both surfaces of wall. Minimum working clearance between cable tray and aperture shall be as stated in drawing below. Minimum separation between penetration seals of 100 mm.

Construction details:

Section view:



Front view:



Solutions

Form-ULID-006104 V8.0

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A.1.2.1

Services	Max. opening size	Insulation	B50 SYSTEM seal details	Annular space within HEATSHIELD B50-ST batt	Classification
<p>Perforated Cable Tray (450 x 25 x 1.1 mm)</p> <p>incl. following cables/conduits:</p> <ul style="list-style-type: none"> - max. 2 No. of H07V-R (1x 95 mm²) with a maximum outer diameter of 17 mm - max. 2 No. of H07V-R (1x 185 mm²) with a maximum outer diameter of 23 mm - max. 13 No. of Cat-5e Network cable with a maximum outer diameter of 6 mm - max. 1 No. of PVC conduit with a maximum outer diameter of 20 mm x1.6 mm wall thickness - max. 1 No. of PVC conduit with a maximum outer diameter of 32 mm x2.5 mm wall thickness 	550 mm wide x 200 mm high	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m ³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500.	≤ 10 mm	E 120-C/C¹⁾ EI 120-C/C¹⁾
<p>Perforated Cable tray (300 x 18 x 1.4 mm)</p> <p>incl. following cables/conduits:</p> <ul style="list-style-type: none"> - max. 10 No. of NYY-J (5x 1.5 mm²) with a maximum outer diameter of 14 mm - max. 10 No. of N2XH (5x1.5 mm²) with a maximum outer diameter of 14 mm - max. 1 No. of steel conduit with a maximum outer diameter of 20 mm x1.6 mm min. wall thickness 	400 mm wide x 200 mm high	Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Interface of insulation to B50-ST batt sealed with 12 mm thick S500.	≤ 10 mm	E 120-C/C¹⁾ EI 120-C/C¹⁾

1) Note: Fire resistance classification shall be extended by supplementary specification C/C, i.e.: E 120-C/C; EI 120-C/C for used conduits.



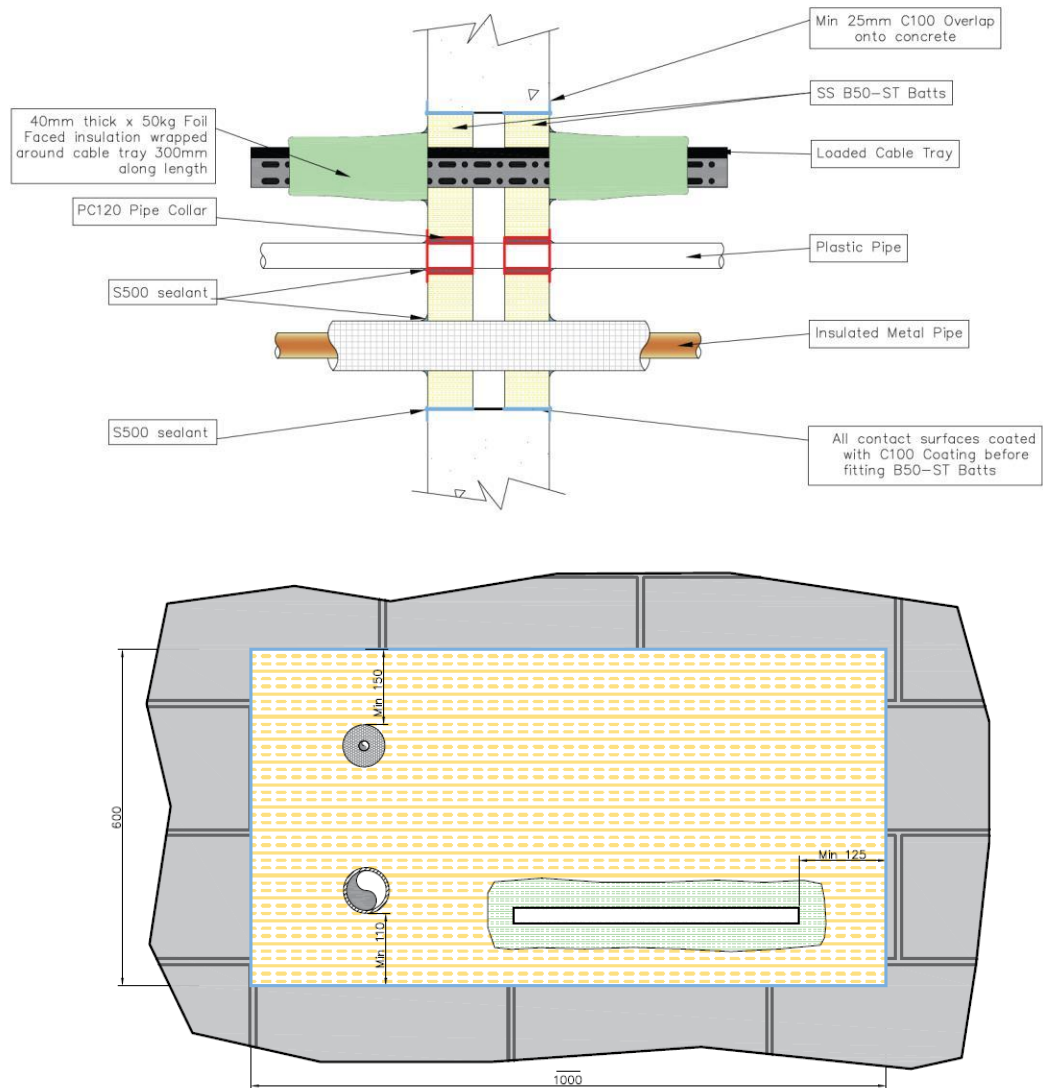
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A.2 Rigid wall constructions according to 1.2.1. with wall thickness of minimum 125 mm

A.2.1 Double side penetration seal with multiple penetrants

Penetration Seal: Multiple penetrations within the aperture and sealed with HEATSHIELD B50 SYSTEM. HEATSHIELD SS B50-ST batt applied flush to both surfaces of wall. Maximum opening size shall be 1000 mm wide x 600 mm high. Minimum working clearance between penetrants and between penetrants and aperture shall be as shown in drawing below. Dimensions for minimum working clearances not shown in drawing shall be at least 100 mm. Minimum separation between penetration seals of 100 mm.

Construction details:



Solutions

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A.2.1.1

Services	Max. opening size within HEATSHIELD B50-ST batt	Insulation	B50 SYSTEM seal details	Annular space within HEATSHIELD B50-ST batt	Classification
Copper, steel or cast iron pipe up to 15 mm diameter and min. wall thickness of 0.7 mm	$\varnothing \leq 65$ mm	Min. 25 mm thick aluminium foil faced stone wool insulation (CS, 50 kg/m ³)	Bead of 10 mm x 10 mm S500 around penetrant	≤ 5 mm	E 120-C/C EI 120-C/C
PVC conduit, Diameter \leq 50 mm, wall thickness 2.4 mm	$\varnothing \leq 70$ mm	N/A	PC120 Pipe Collar \varnothing 55 mm. Mounting lugs are flush with surface of SS B50-ST Batts and a bead of S500 (10 x 10) mm applied around the surface of collar at the edge on both sides of the wall	0 mm	E 120-C/C EI 120-C/C
Perforated Cable Tray (300 x 18 x 1.4 mm) incl. following cables: - max. 10 No. of NYY-J (5x 1.5 mm ²) with a maximum outer diameter of 14 mm - max. 10 No. of N2XH (5x1.5 mm ²) with a maximum outer diameter of 14 mm	305 mm wide x 50 mm high	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m ³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500. Interface of insulation to B50-ST batt sealed with 12 mm thick S500.	≤ 10 mm	E 120 EI 120

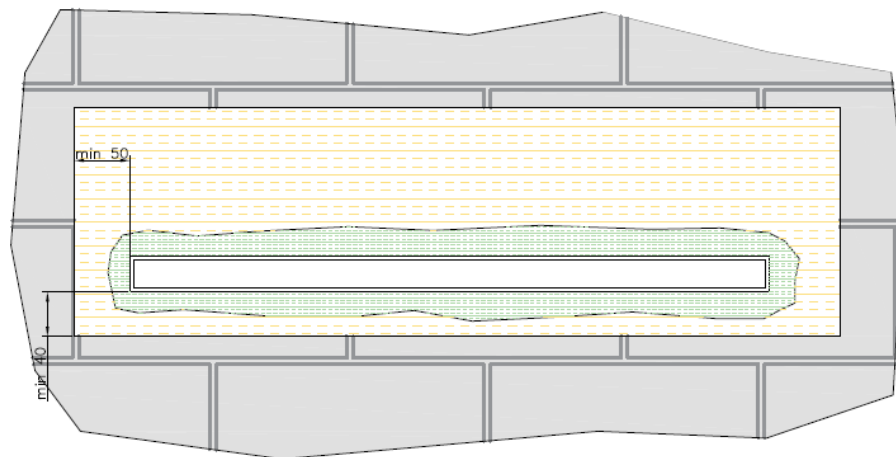
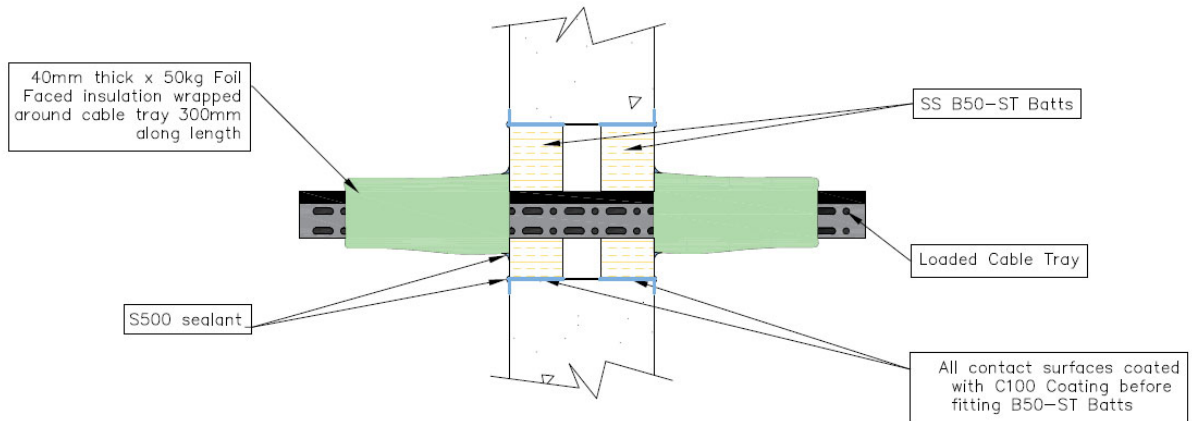


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A.2.2 Double side penetration seal with insulated cable trays

Penetration Seal: Single cable tray with cables within the aperture and sealed with HEATSHIELD B50 SYSTEM. HEATSHIELD SS B50-ST batt applied flush to both surfaces of wall. Minimum working clearance between cable tray and aperture shall be as stated in drawing below. Dimensions for minimum working clearances not shown in drawing shall be at least 100 mm. Minimum separation between penetration seals of 100 mm.

Construction details:



Solutions

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A.2.2.1

Services	Max. opening size	Insulation	B50 SYSTEM seal details	Annular space within HEATSHIELD B50-ST batt	Classification
Perforated Cable Tray (450 x 25 x 1.1 mm) incl. following cables/conduits: - max. 2 No. of H07V-R (1x 95 mm ²) with a maximum outer diameter of 17 mm - max. 2 No. of H07V-R (1x 185 mm ²) with a maximum outer diameter of 23 mm - max. 100 No. of Cat-5e Network cable with a maximum outer diameter of 6 mm - max. 3 No. of PVC conduit with a maximum outer diameter of 20 mm x 1.6 mm wall thickness	550 mm wide x 250 mm high	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m ³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500. Interface of insulation to B50-ST batt sealed with 12 mm thick S500.	≤ 10 mm	E 120-C/C¹⁾ EI 90-C/C¹⁾
Perforated Cable tray (300 x 18 x 1.4 mm) incl. following cables/conduits: - max. 10 No. of NYY-J (5x 1.5 mm ²) with a maximum outer diameter of 14 mm - max. 10 No. of N2XH (5x1.5 mm ²) with a maximum outer diameter of 14 mm - max. 1 No. of H07RN-F (4x95 mm ²) with a maximum outer diameter of 50 mm	400 mm wide x 250 mm high	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m ³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m ³).	Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500. Interface of insulation to B50-ST batt sealed with 12 mm thick S500.	≤ 10 mm	E 120 EI 120

1) Note: Fire resistance classification shall be extended by supplementary specification C/C, i.e.: E 120-C/C; EI 90-C/C for used conduits.



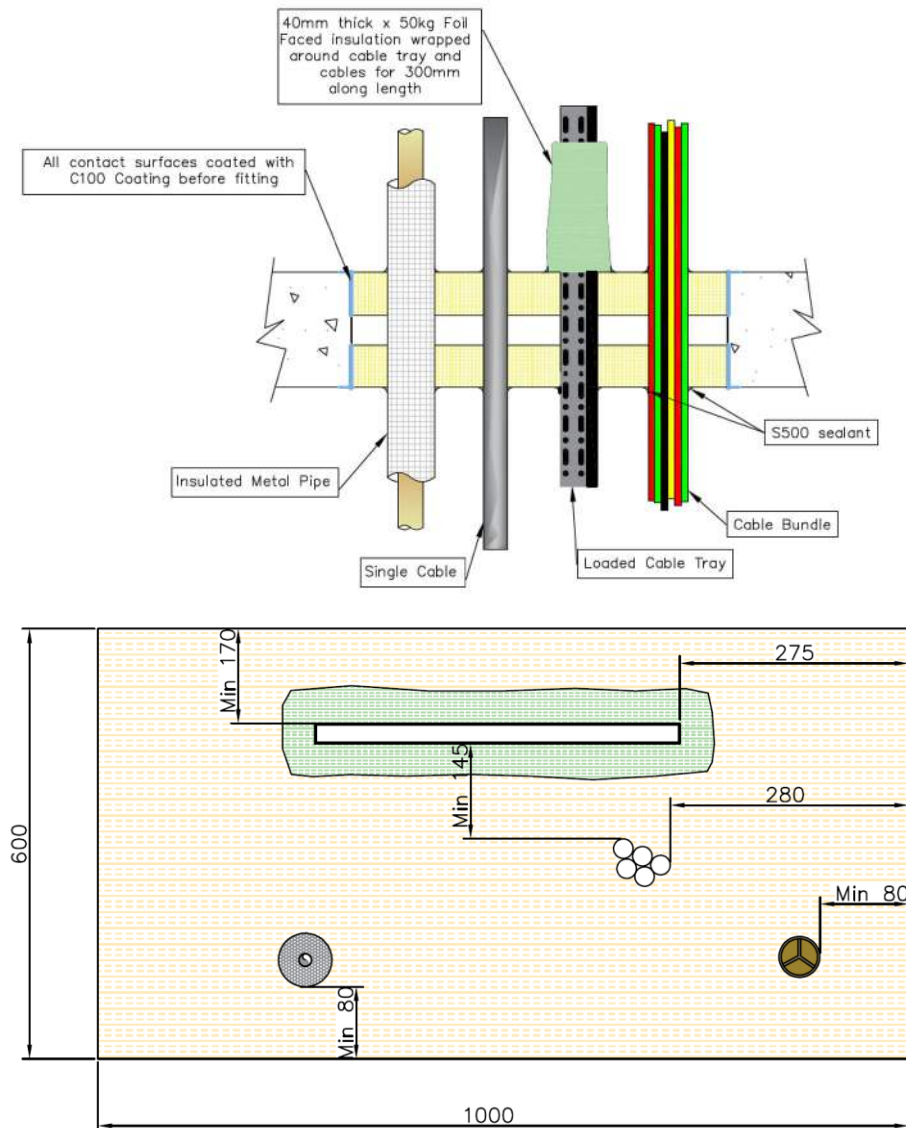
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A.3 Rigid floor constructions according to 1.2.1 with floor thickness of minimum 150 mm

A.3.1 Double side penetration seal with multiple penetrants

Penetration Seal: Multiple penetrations within the aperture and sealed with HEATSHIELD B50 SYSTEM. HEATSHIELD SS B50-ST batt applied flush to both surfaces of floor. Maximum opening size shall be 1000 mm x 600 mm. Minimum working clearance between penetrants and between penetrants and aperture shall be as shown in drawing below. Dimensions for minimum working clearances not shown in drawing shall be at least 100 mm. Minimum separation between penetration seals of 100 mm.

Construction details:



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A.3.1.1

Services	Max. opening size within HEATSHIELD B50-ST batt	Insulation	B50 SYSTEM seal details	Annular space within HEATSHIELD B50-ST batt	Classification
<p>Perforated Cable Tray (450 x 25 x 1.1 mm) incl. following cables:</p> <ul style="list-style-type: none"> - max. 10 No. of NYY-J (5x 1.5 mm²) with a maximum outer diameter of 14 mm - max. 20 No. of N2XH (5x1.5 mm²) with a maximum outer diameter of 14 mm - max. 1 No. of H07RN-F (4x95 mm²) with a maximum outer diameter of 50 mm 	450 mm wide x 50 mm high	<p>Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m³). Min. 300 mm long from both surfaces of wall wrapped around entire cable tray (LI). Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m³).</p>	<p>Bead of 10 mm x 10 mm S500 around penetrants and between cable tray and penetrants. Gap between the cable tray with cables and SS B50-ST Batts is sealed with 10 mm thick S500. Interface of insulation to B50-ST batt sealed with 12 mm thick S500.</p>	≤ 10 mm	E 90 EI 90
<p>Perforated Cable tray (300 x 18 x 1.4 mm) incl. following cables/conduits:</p> <ul style="list-style-type: none"> - max. 10 No. of NYY-J (5x 1.5 mm²) with a maximum outer diameter of 14 mm - max. 10 No. of N2XH (5x1.5 mm²) with a maximum outer diameter of 14 mm - max. 1 No. of H07RN-F (4x95 mm²) with a maximum outer diameter of 50 mm 	305 mm wide x 50 mm high			≤ 10 mm	E 90 EI 90-
<p>Electrical cable(s), single or bundle of up to 5 No. of NYY-J (5x 1.5 mm²) with a maximum outer diameter of 14 mm</p>	Ø ≤ 40 mm	N/A	10 mm thickness of S500 around and between cables	≤ 10 mm	E 90 EI 90
<p>Copper, steel or cast iron pipe up to 15 mm diameter and min. wall thickness of 0.7 mm</p>	Ø ≤ 70 mm	<p>Min. 25 mm thick aluminium foil faced stone wool insulation (CS, 50 kg/m³)</p>	<p>Bead of 10 mm x 10 mm S500 around penetrant</p>	5 mm	E 90-C/C EI 90-C/C
<p>Copper, steel or cast iron pipe up to 108 mm diameter and min. wall thickness of 1.5 mm</p>	Ø ≤ 160 mm			2 mm	E 90-C/C EI 90-C/C
<p>Single electrical cable of H07RN-F (4x185 mm²) with a maximum outer diameter of 60 mm</p>	Ø ≤ 60 mm	N/A	10 mm thickness of S500 around cable	0 mm	E 90 EI 90



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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.



The minimum height of the registered trademark symbol ® shall be 1 mm. When the overall diameter of the UL-EU Mark is less than 9.5 mm, the trademark symbol may be omitted if it is not legible to the naked eye.

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.

PROCUREMENT

The Production site may reproduce the Mark or obtain it from a UL authorized supplier. The list of UL authorized suppliers can be found on UL's online directory at www.ul.com.



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