UL-EU CERTIFICATE

Certificate No.
UL-EU-01304-EN

Issue date
2024-10-15

Issue No.
2

Re-Issue date
2025-12-11

Expiry date
2034-10-14

This is to acknowledge that:
Triton Middle East LLC

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

Has had the product:
HEATSHIELD M1150

evaluated and meets the requirements of the standard(s):

EAD 350454-00-1104, September 2017

Places of production:
U/003

Authorised Signatory:

Chris Johnson
Issued by UL International (UK) Ltd

UKAS PRODUCT CERTIFICATION
4705

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shall remain valid through the Expiration date, unless a Standard identified on this Certificate is amended or withdrawn prior to that date or there is a non-compliance with the Agreement.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 M1150, a gypsum-based mortar material, used to reinstate the fire resistance performance of floor constructions where they have been provided with apertures for the penetrations of multiple services.
The detailed scope is given in pages 4 to 9 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 1366-3:2009 and 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

According to EN 1366-3: 2021+A1: 2024, Clause H.4.1.8.6.2, the following end uses are envisaged* based upon the tested pipe end configuration:

Pipe material	Tested pipe end	Envisaged use scenario
Metal	C/U or C/C	Closed pipe systems (e.g. systems under pressure)
	U/U, U/C or C/U	Ventilated pipe systems (e.g. sewage pipes) and for closed pipe systems
Plastic	U/U or C/U	Ventilated pipe systems and for closed pipe systems
	U/U	Ventilated pipe systems, for rainwater systems and for closed pipe systems

* In the case where a national prescription is in conflict with the content of the table above, the national prescriptions prevail.

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

Product-type: Mortar		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 the 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 and accessibility 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_2
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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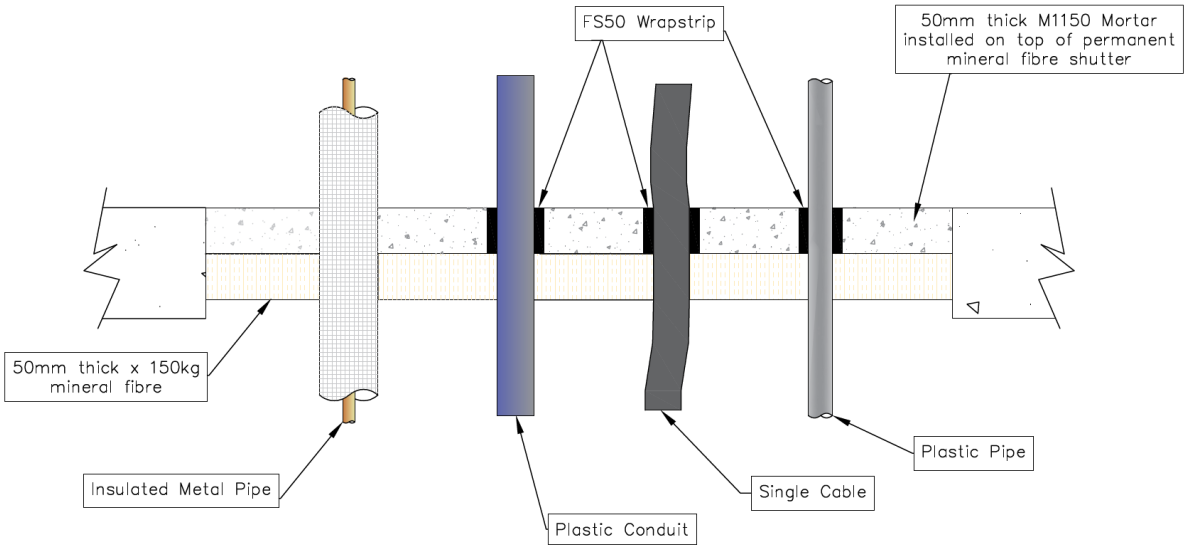
ANNEX A – Resistance to Fire Classification – HEATSHIELD M1150
A.1 Rigid floor constructions with floor thickness of minimum 150 mm
A.1.1 Multiple penetration seal with HEATSHIELD M1150 backed with mineral fibre-board

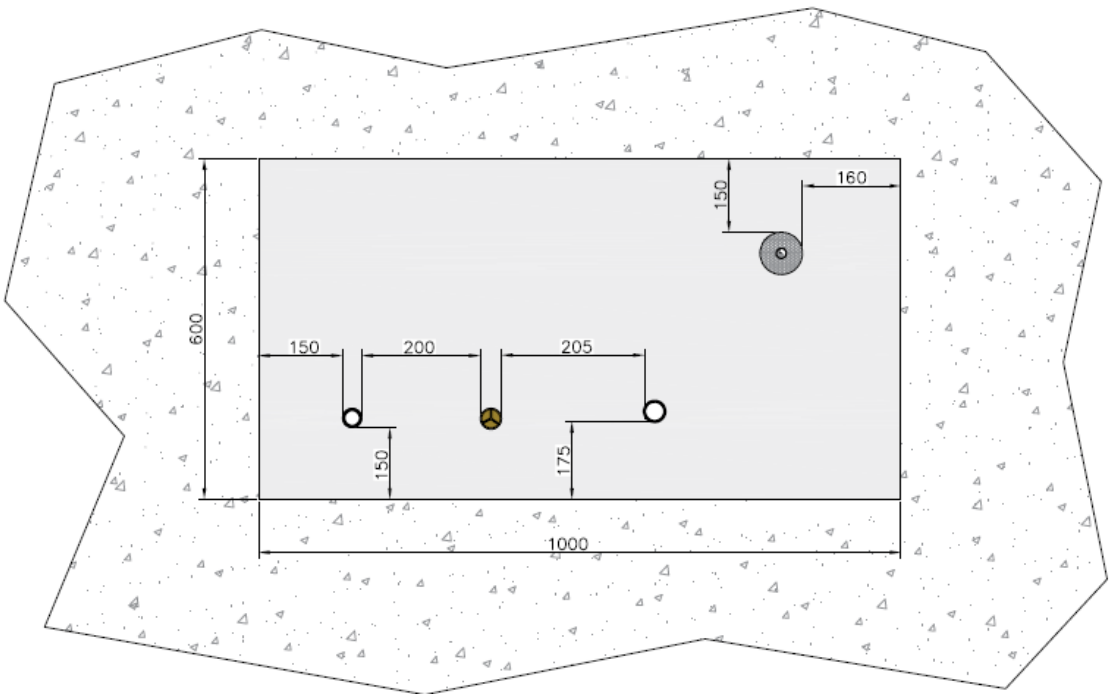
Penetration Seal: Multiple penetrations within the aperture and sealed with HEATSHIELD M1150 to a min. depth of 50 mm. 50 mm thick mineral fibre-board (150 kg/m^3) recessed min. 50 mm from top side of floor used as shutter cut to closely follow penetrants. HEATSHIELD FS 50 wrap installed around single cables and plastic pipes/conduits. 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 200 mm. Minimum separation between penetration seals of 100 mm.

Construction details:

Section view:



Front view:



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Services	Insulation	HEATSHIELD M1150 seal details	Classification
Single electrical cable of H07RN-F (4x95 mm^2) with a maximum outer diameter of 61 mm	-	1 layer of 50 mm wide x 2 mm thick HEATSHIELD FS50 wrapped around cable flush with top surface of floor	**E 120 EI 120**
ABS pipe (BS5391-1) up to 32 mm diameter and 2.2 mm wall thickness		2 layers of 50 mm wide x 2 mm thick HEATSHIELD FS50 wrapped around pipe flush with top surface of floor	**E 120 C/C EI 120 C/C**
PVC conduit up to 19 mm diameter and 1.6 mm wall thickness			**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	Min. 25 mm thick aluminium foil faced stone wool insulation (CS, 50 kg/m^3)	-	**E 120 C/C EI 120 C/C**
Copper, steel or cast iron pipe up to 67 mm diameter and min. wall thickness of 1.2 mm		-	**E 120 C/C EI 120 C/C**
Copper, steel or cast iron pipe up to 108 mm diameter and min. wall thickness of 1.5 mm		-	**E 120 C/C EI 60 C/C**

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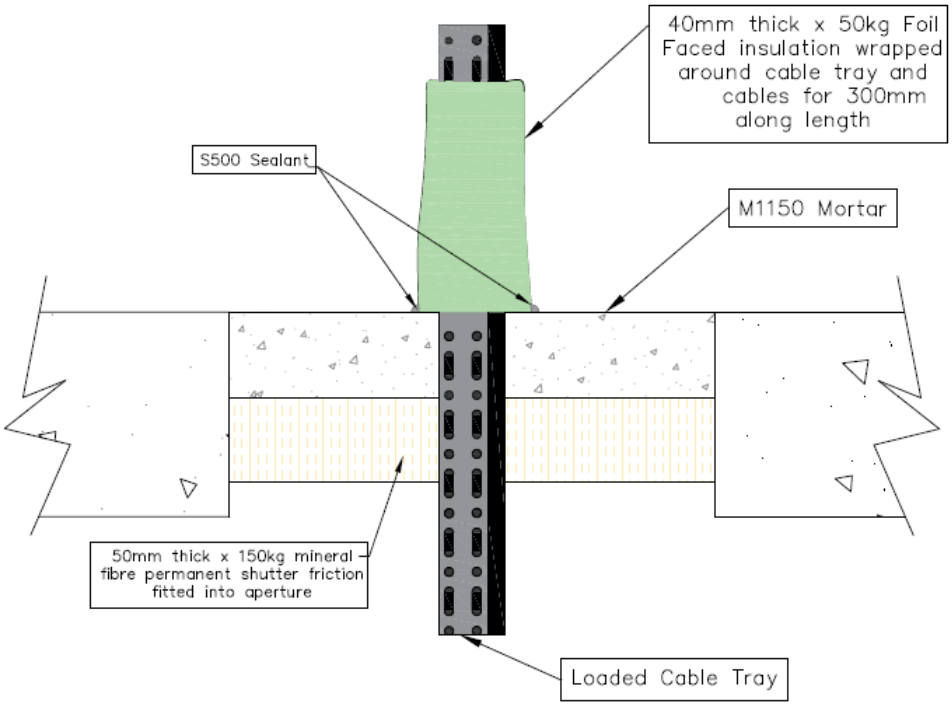
A.1.2 Penetration seal with insulated cable trays with HEATSHIELD M1150 backed with mineral fibre-board

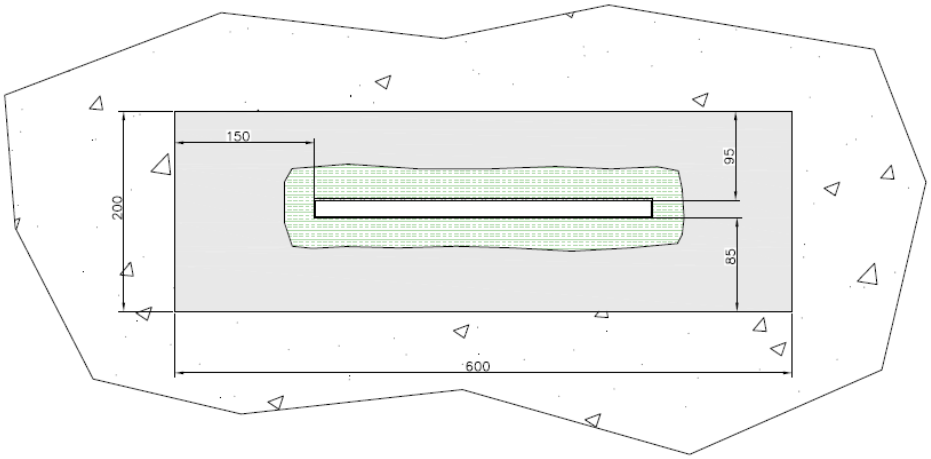
Penetration Seal: Cables on cable tray within the aperture sealed with HEATSHIELD M1150 to a min. depth of 50 mm. 50 mm thick mineral fibre-board (150 kg/m^3) recessed min. 50 mm from top side of floor used as shutter cut to closely follow penetrants. Minimum working clearance between penetrants and aperture shall be as shown in drawing below. Minimum separation between penetration seals of 100 mm.

Construction details:

Section view:



Front view:



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Services	Insulation	HEATSHIELD M1150 seal details	Classification
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 H07RN-F (5x1.5 mm^2) with a maximum outer diameter of 14 mm - max. 10 No. of NYM-J (5x2.5 mm^2) with a maximum outer diameter of 12 mm - max. 1 No. of H07RN-F (4x95 mm^2) with a maximum outer diameter of 61 mm	Min. 40 mm thick aluminium foil faced stone wool insulation (50 kg/m^3). Min. 300 mm long from top surface of floor wrapped around entire cable tray. Open ends of mineral wool wrap filled with loose mineral wool (50 kg/m^3).	Gaps between cables and cable bundles sealed with HEATSHIELD M1150 mortar to min. depth of 50 mm. Interface of insulation to M1150 mortar sealed with 12 mm thick bead of HEATSHIELD S500	**E 120 EI 120**
Perforated Cable Tray (450 x 25 x 1.1 mm) incl. following cables/conduits: - max. 1 No. of H07V-R (1x 95 $mm^{2)}$ with a maximum outer diameter of 17 mm - max.1 No. of H07V-R (1x 185 mm^2) with a maximum outer diameter of 23 mm - max. 100 mm diameter bundle of Cat-5e Network cable with a maximum outer diameter of 6 mm			**E 120 EI 60**

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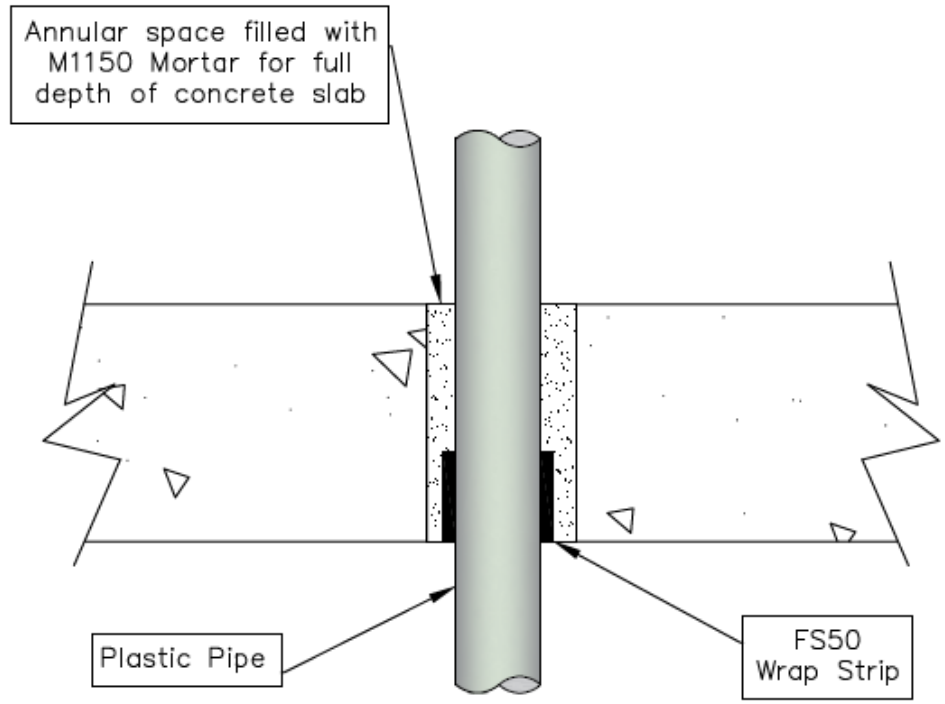
A.1.3 Penetration seal with plastic pipes with HEATSHIELD M1150

Penetration Seal: Single plastic pipe within the aperture sealed with HEATSHIELD M1150 to a min. depth of 150 mm. Minimum separation between penetration seals of 100 mm. Max. opening size shall be up to 202 mm diameter.

Construction details:

Section view:



Services	HEATSHIELD M1150 seal details	Classification
PVC-U pipe up to a diameter of 160 mm and a wall thickness of 6.2 mm	5 layers of 50 mm wide x 2 mm thick HEATSHIELD FS50 wrapped around pipe flush with bottom surface of floor	**E 90 C/C** **EI 90 C/C**

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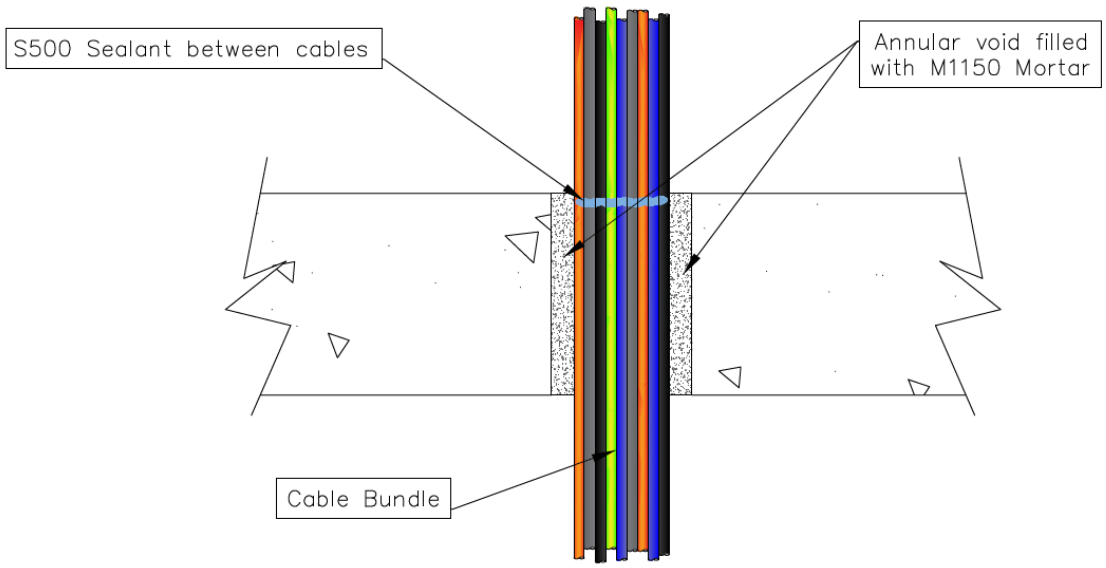
A.1.4 Penetration seal with cables with HEATSHIELD M1150

Penetration Seal: Cables within the aperture sealed with HEATSHIELD M1150 to a min. depth of 150 mm. Minimum separation between penetration seals of 100 mm. Max. opening size shall be up to 150 mm diameter.

Construction details:

Section view:



Services	HEATSHIELD M1150 seal details	Annular space	Classification
Max. 10 No. of H07RN-F (5x1.5 mm^2) with a maximum outer diameter of 14 mm	Gaps between cables in cable bundle sealed with HEATSHIELD S500 sealant with min. 12 mm depth. M1150 Mortar in the gap between floor and services	20-30 mm	**E 120** **EI 120**

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The UL-EU Marks, displayed below represent the enhanced and alternate version of the product marking. Either Mark can be used. These Marks shall appear on certified products only. Minimum size is not specified, as long as the Mark is legible. The following is suggested.

*Note: E12345 is an example of the UL file number.

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 and UL File 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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