Sponsor:

FSi Ltd
Westminster Industrial Estate
Tamworth Rd
Measham
Swadlincote
DE12 7DS

Prepared by:
UL International (UK) Ltd

Approved body No.:
0843

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NS Putty Pad

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UL International (UK) Ltd.
220, Cygnet Court, Centre Park, Warrington. WA1 1PP

UKAS PRODUCT CERTIFICATION
4705

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1. Introduction

This classification report defines the classification assigned to the element NS Putty Pad, in accordance with the procedures given in BS EN 13501-2: 2016.

2. Details of classification product

2.1 General

The product NS Putty Pad is defined as a fire resisting penetration sealing system to be used to reinstate the performance of walls.

2.2 Product description

The element NS Putty Pad is fully described in the test reports provided in support of classification detailed in clause 3.1.

3. Test reports in support of classification

3.1 Summary of test reports

Name of laboratory	Name of sponsor	Test and Date	Test method
Warringtonfire - Notified Body No. 0833	FSi Limited	524291A/R Issue 2, 28/10/2022	BS EN 1366-3: 2021
		524291B/R, 28/10/2022	
		530338, 13/03/2023	

3.2 Results

Summary of report WF No. 524291A/R Issue 2

Test Specimen:
The test was conducted generally in accordance with EN 1366-3: 2021, on two parts of standard flexible wall construction (drywall) one 100mm thick and the other 130 mm thick and included 8 specimens of steel back box and face plate sockets, each inlayed with 3mm thick NS Putty Pad and connected to an identical socket on the other face of the wall via type ‘A’ cables. The socket boxes were all ‘2 gang’ variants with dimensions of 132 x 72 x 47 mm.

Standard:
EN 1366-3: 2021

The results of the test were as follows:

Specimen	Integrity mins	Insulation Mins
A	180	180
B	169	152
D	180	169
E	170	140
G	180	171
H	180	174
K	149	130
L	173	157

Summary of report WF No. 524291B/R

Test Specimen:
The test was conducted generally in accordance with EN 1366-3: 2021, on two parts of standard flexible wall construction (drywall) one 100mm thick and the other 130 mm thick and included 4 specimens of plastic back box and face plate sockets, each inlayed with 3mm thick NS Putty Pad and connected to an identical socket on the other face of the wall via type 'A' cables. The socket boxes were all '2 gang' variants with dimensions of 132 x 72 x 47 mm.

Standard:
EN 1366-3: 2021

The results of the test were as follows:

Specimen	Integrity mins	Insulation Mins
C	68	68
F	117	117
I	116	116
J	58	49

Summary of report WF No. 530338

Test Specimen:
The test was conducted in accordance with EN 1366-3: 2021, on two parts of standard flexible wall construction (drywall) one 100mm thick and the other 130 mm thick and included 9 specimens of metal and plastic back box and face plate sockets, each inlayed with 3mm thick NS Putty Pad and connected to an identical socket on the other face of the wall via type 'A' cables. The socket boxes were all '2 gang' variants with dimensions of 132 x 72 x 47 mm.

Standard:
EN 1366-3: 2021

The results of the test were as follows:

Specimen	Integrity mins	Insulation Mins
A	100	100
C	100	73
E	84	84
G	96	96
H	120	102
I	120	120
J	120	120
T	120	118
U	120	119

4. Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7 of EN 13501-2:2016.

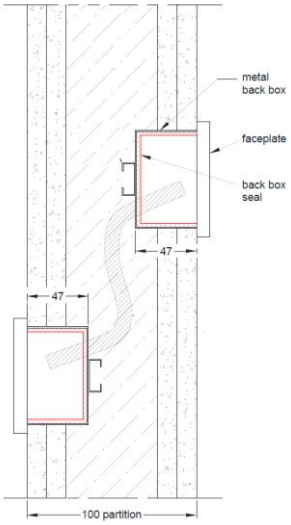
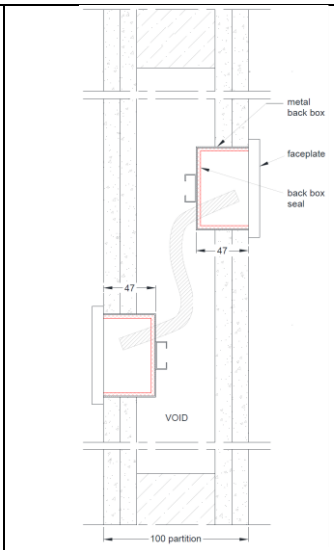
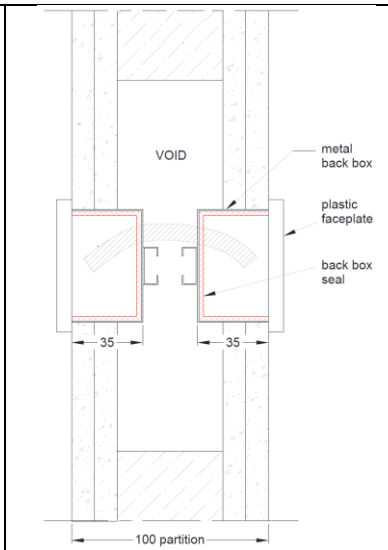
4.2 Classification

The element, product name NS Putty Pad is classified according to the following combinations of performance parameters and classes as appropriate.

R	E	I	W		*t*	*t*	-	M	S	C	IncSlow	sn	ef	r	G	K

Flexible wall constructions with wall thickness of minimum 100 mm

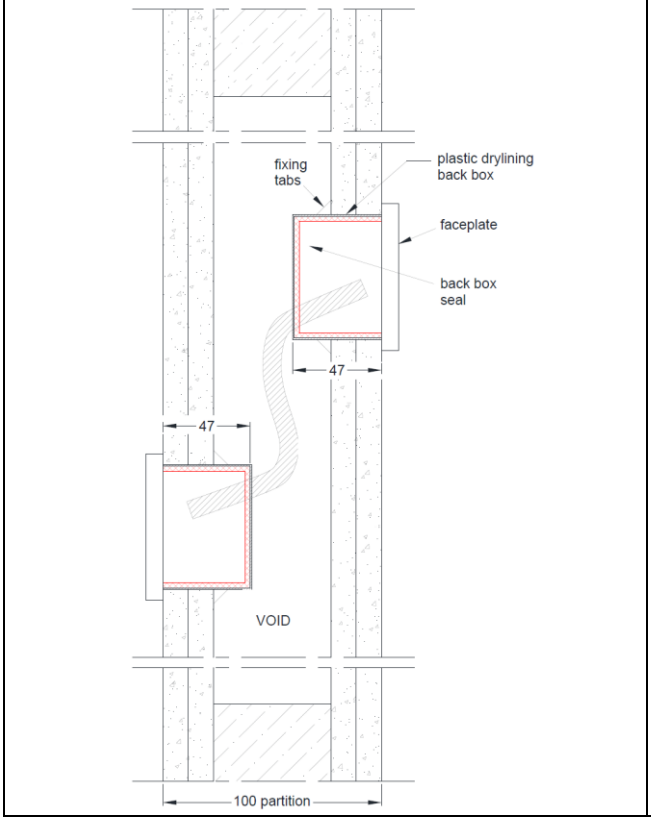
Sockets with Metal Back Boxes

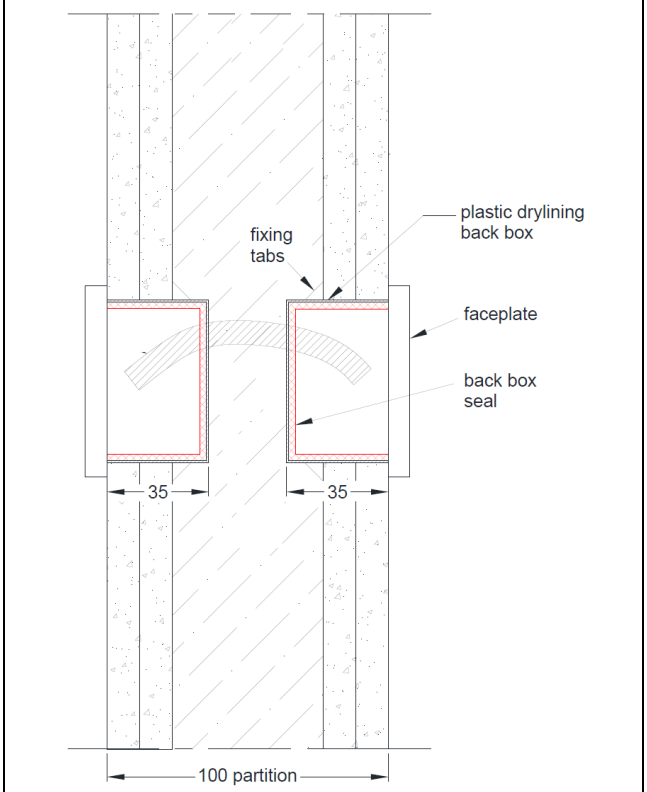
<table>
<tr><td colspan="4">Penetration Seal: Flexible Walls ≥100mm. 2 gang steel back boxes, lined internally with NS Putty Pad. Boxes screw fixed to a steel caddy strap using 2 no. 42 mm long steel screws. Electrical cables for use in domestic sockets (up to 14mm diameter)</td></tr>
<tr><td colspan="4">Construction details:</td></tr>
<tr><td colspan="2"> 
</td><td colspan="2"> 
</td><td> 
</td></tr>
<tr><th>Configuration</th><th>Required wall insulation</th><th>Back box size mm</th><th>Classification</th></tr>
<tr><td rowspan="2">Offset by min. 150mm centre to centre</td><td>Stone wool, 50mm / 100 kg/m^3</td><td rowspan="2">132 x 72 x 47 mm</td><td rowspan="2">E 180, EI 120</td></tr>
<tr><td rowspan="2">None</td></tr>
<tr><td>Back to Back</td><td>132 x 72 x 35 mm</td><td>EI 120</td></tr>
</table>

Sockets with Plastic Back Boxes

Penetration Seal: Flexible Walls ≥100mm. 2 gang plastic back boxes, lined internally with NS Putty Pad. Adjustable plastic fixing tabs used to secure into the wall. Electrical cables for use in domestic sockets (up to 14mm diameter)

Construction details:





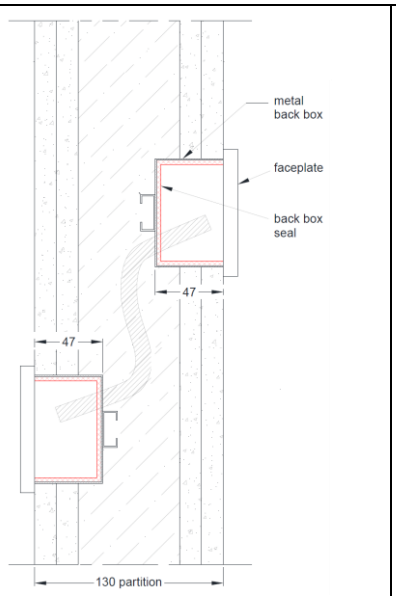
Configuration	Required wall insulation	Back box size mm	Classification
Offset by min. 150mm centre to centre	None	132 x 72 x 47 mm	EI 90
Offset by min. 100mm centre to centre & 2 boxes in contact, side by side	None	132 x 72 x 47 mm	E 90, EI 60
Back to Back	Stone wool, 50mm / 100 kg/m^3	132 x 72 x 35 mm	EI 45

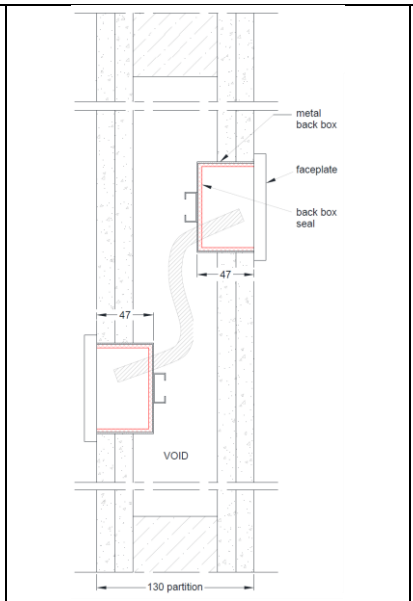
Flexible wall constructions with wall thickness of minimum 130 mm

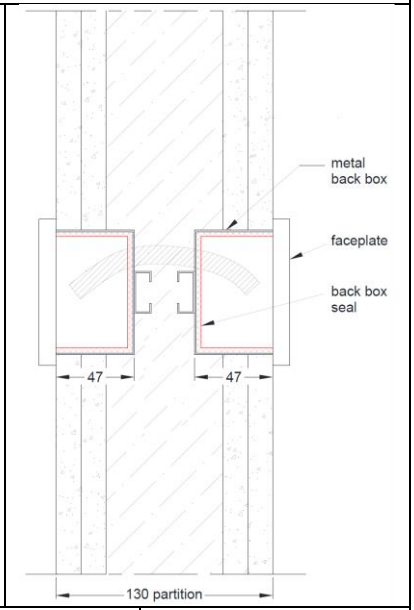
Sockets with Metal Back Boxes

Penetration Seal: Flexible Walls ≥130mm. 2 gang steel back boxes, lined internally with NS Putty Pad. Boxes screw fixed to a steel caddy strap using 2 no. 42 mm long steel screws. Electrical cables for use in domestic sockets (up to 14mm diameter)

Construction details:

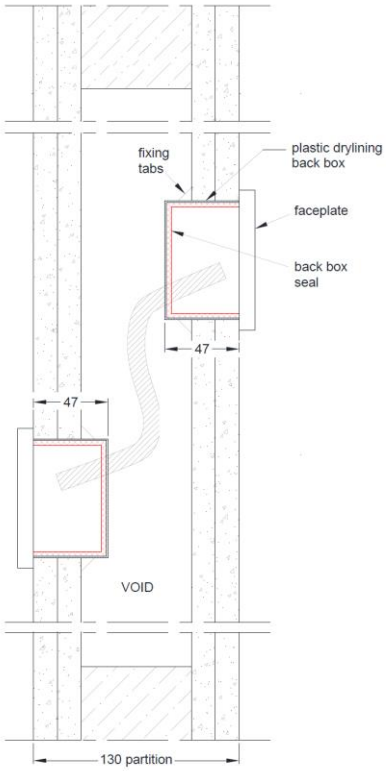
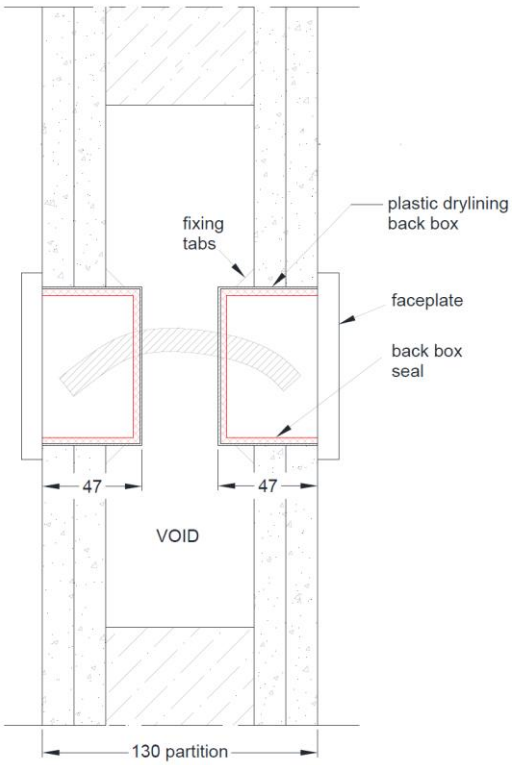






Configuration	Required wall insulation	Back box size mm	Classification
Offset by min. 150mm centre to centre	Stone wool, 70mm / 100 kg/m^3	132 x 72 x 47 mm	EI 180
	None		EI 120
Back to Back & 2 boxes in contact, side by side			E 120, EI 90
Back to Back	Stone wool, 70mm / 100 kg/m^3		E 180, EI 120

Sockets with Plastic Back Boxes

Penetration Seal: Flexible Walls ≥130mm. 2 gang plastic back boxes, lined internally with NS Putty Pad. Adjustable plastic fixing tabs used to secure into the wall. Electrical cables for use in domestic sockets (up to 14mm diameter)			
Construction details:			
			
Configuration	**Required wall insulation**	**Back box size mm**	**Classification**
Offset by min. 150mm centre to centre	None	132 x 72 x 47 mm	EI 60
Back to Back			EI 90

4.3 Field of Application – Penetration Seals

This classification is valid for the following end use applications (as defined in EN1366-3: 2009, referencing the following appropriate clauses of EN1366-3: 2009).

4.3.1 General Rules

13.1 Orientation

Test results are only applicable to the orientation in which the penetration seals were tested, i.e. in a wall or floor.

13.2 Supporting construction

13.2.1 Rigid floor and wall constructions

Test results obtained with rigid standard supporting constructions may be applied to concrete or masonry separating elements of a thickness and density equal to or greater than that of the supporting construction used in the test. This rule does not apply to pipe closure devices positioned within the supporting construction in case of higher thickness of the supporting construction unless the length of the seal is increased by an equal amount and the distance from the surface of the supporting construction remains the same on both sides.

13.2.2 Flexible wall constructions

13.2.2.1 Test results obtained with the standard flexible wall constructions according to 7.2.2.1.2 cover all flexible wall constructions of the same fire resistance classification provided:

A.2.1 The construction is classified in accordance with EN 13501-2;

B.2.1 The construction has an overall thickness not less than the minimum thickness of the range given in Table 3 for the standard flexible wall used in the test. This rule does not apply to pipe closure devices positioned within the supporting construction unless the length of the seal is increased by an equal amount and the distance from the surface of the supporting construction remains the same on both sides;

C.2.1 In the case of penetration seals installed within the wall and where a flexible wall with insulation was used in the test an aperture framing shall be used in practice. The aperture frame and aperture lining shall be made from studs and boards of the same specification as those used in the wall in practice. The thickness of the aperture lining shall be minimum 12.5 mm. This rule does not apply in the case where the insulation was removed around the penetration seal(s) (see 7.2.2.1.2);

D.2.1 The number of board layers and the overall board layer thickness is equal or greater than that tested when no aperture framing is used

E.2.1 Flexible wall constructions with timber studs are constructed with at least the same number of layers as given in Table 3, no part of the penetration seal is closer than 100 mm to a stud, the cavity is closed between the penetration seal and the stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 is provided within the cavity between the penetration seal and the stud.

13.2.2.2 An aperture framing is considered as being part of the penetration seal. Tests without an aperture framing cover applications with aperture framing but not vice versa.
13.2.2.3 The standard flexible wall construction does not cover sandwich panel constructions and flexible walls where the lining does not cover the studs on both sides. Penetrations in such constructions shall be tested on a case by case basis.

13.2.2.4 Test results obtained with flexible supporting walls may be applied to concrete or masonry elements of an overall thickness equal to or greater than that of the element used in the tests. This rule does not apply to pipe closure devices positioned within the supporting construction unless the length of the seal is increased by an equal amount and the distance from the surface of the supporting construction remains the same on both sides.

13.3 Services

13.3.1 The direct field of application rules apply to the nominal dimensions of services.

13.3.2 For the field of direct application for cable penetration seals including small conduits see A.3, B.2, C.1.2 and C.2.3.

13.4 Service support construction

13.4.3 The distance from the surface of the separating element to the nearest support position for services shall be as tested or less.

13.5 Seal size and distances

13.5.1 The test results obtained using standard wall and floor configurations for penetration seals are valid for any penetration seal size (in terms of linear dimensions) equal to or smaller than that tested, provided the total amount of cross sections of the services (including insulation) does not exceed 60 % of the penetration area, the working clearances are not smaller than the minimum working clearances (as defined in Annexes A & B) used in the test and a blank penetration seal of the maximum seal size desired was tested in addition.

13.5.2 For floor constructions, results from tests with a penetration seal length of minimum 1000 mm apply to any length as long as the perimeter length to seal area ratio is not smaller than that of the tested penetration seal.

13.5.3 The distance between a single service and the seal edge (annular space, e.g. a1 according to Figures B.7) shall remain within the tested range.

5. Limitations

This classification report does not represent type approval or certification of the product.

6. Signatories

Report by:

Chris Johnson
Senior Staff Engineer
Built Environment

Reviewed by:

David Yates
Staff Engineer
Built Environment

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