

CLASSIFICATION OF FIRE RESISTANCE

FIRES-CR-059-24-AUPE

Electrical socket boxes installed in flexible wall (thickness of 100 mm)

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CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2: 2023 with direct field of application

FIRES-CR-059-24-AUPE

Name of the product: Electrical socket boxes installed in flexible wall (thickness of 100 mm)

Sponsor: Hilti (Gt. Britain) Ltd.,
No.1 Circle Square 3 Symphony Park,
M1 7FS Manchester,
The United Kingdom of Great Britain and Northern Ireland

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1. INTRODUCTION

This classification report defines the resistance to fire classification assigned to element of Electrical socket boxes installed in flexible wall (thickness of 100 mm) in accordance with the procedures given in EN 13501-2: 2023.

There is no European standard for testing products as seals for electrical sockets. Test standard EN 1366-3: 2021 was used as the most appropriate standard on the basis of agreement between the testing laboratory and the test sponsor. The test configuration and field of direct application were also taken into account by the currently unpublished standard prEN 1366-14 - Fire resistance tests for device installations - Part 14: Partial penetration seals.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, an electrical socket box installed in a flexible wall (with a minimum thickness of 100 mm) is to serve as a penetration seal. This seal helps to maintain the fire resistance of a separating element at the point where services pass through or where there is provision for services to pass through. This occurs when a device or devices penetrate one or two faces of the separating element.

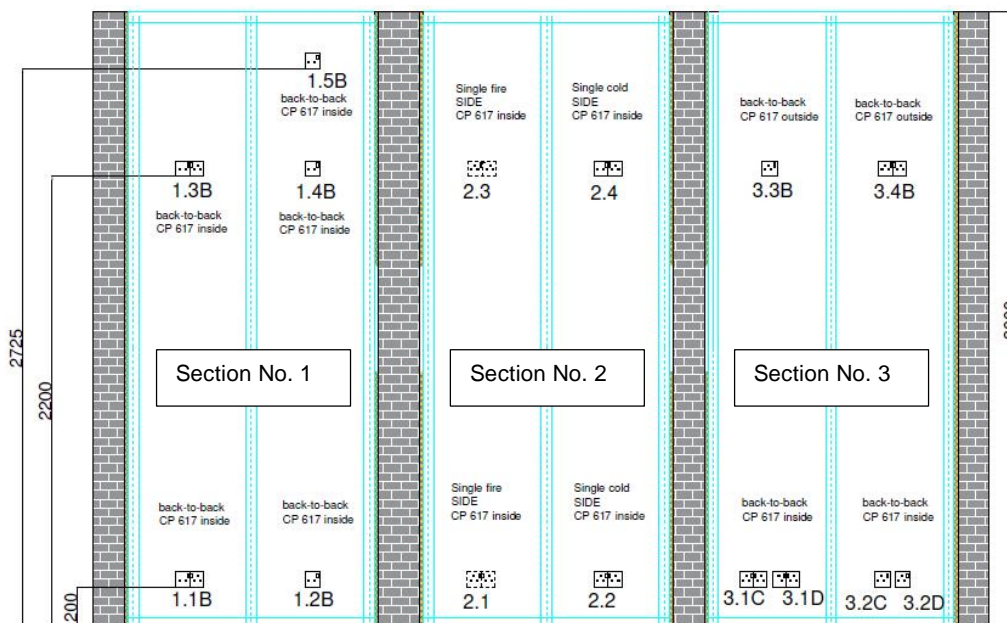
2.2 PRODUCT DESCRIPTION

The separate/single sealing system build in the standard flexible wall construction (acc. to clause 7.2.2.1.2.1. of EN 1366-3: 2021) with a wall thickness of 100 mm was divided into three sections with dimension (1200 x 3000) mm (w x h). The electrical sockets were installed within the standard flexible construction and sealed with Hilti CP 617 Intumescent Putty Pads.

Flexible wall consists of steel UW profiles (50,0 x 40,0 x 0,6) mm and CW profiles (50,0 x 50,0 x 0,6) mm (width x height x thickness), two layers of gypsum boards, type F in accordance with EN 520 (manufacturer: Siniat Ogien Plus) with thickness 12,5 mm from both sides and mineral wool, type STEPROCK HD (manufacturer: Rockwool) with a thickness of 50 mm and bulk density of 100 kg.m⁻³ (stated by the mineral wool manufacturer).

The insulation is removed to a depth of 100 mm around the penetrations (aperture edges) and a minimum of 100 mm of insulation is left along the studs (CW profiles), measured from the base plate of the stud. Both vertical edges of supporting construction (individual sections) are unrestrained (free vertical edges).

Figure 1 view of the test specimens from unexposed side:







2.3 PRODUCT DESCRIPTION

Intumescent putty pads, type Hilti CP 617





- used for a lining recessed socket boxes (either internally or externally).

2.4 DESCRIPTION OF THE SERVICES STRUCTURE





Table: Services according to the table below:

Service	Type of service	Opening	Penetration sealing
<p>Separate/single sealing system: standard flexible wall construction (acc. to clause 7.2.2.1.2.1 of standard EN 1366-3 for double-sided flexible walls) with thickness of 100 mm and divided into the three sections with dimensions (1200 x 3000) mm (width x height).</p>			
<p>1.5B <i>(1.5A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 2725 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>1.4B <i>(1.4A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 2200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>







Service	Type of service	Opening	Penetration sealing
<p>1.3B <i>(1.3A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 2200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>1.2B <i>(1.2A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>1.1B <i>(1.1A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>2.1</p>	<p>Electrical back box socket¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: exposed side</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>




Service	Type of service	Opening	Penetration sealing
2.2	Electrical back box socket ¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket ²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall:</i> unexposed side Height ³⁾ : 200 mm	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.  <i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i>
2.3	Electrical back box socket ¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket ²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall:</i> exposed side Height ³⁾ : 2200 mm	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.  <i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i>
2.4	Electrical back box socket ¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket ²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall:</i> unexposed side Height ³⁾ : 2200 mm	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.  <i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i>
3.1C <i>(3.1A from exposed side)</i>	Electrical back box socket ¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket ²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall:</i> back-to-back Height ³⁾ : 200 mm	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.  <i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i>



Service	Type of service	Opening	Penetration sealing
<p>3.1D <i>(3.1B from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>3.2C <i>(3.2A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>3.2D <i>(3.2B from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>
<p>3.3B <i>(3.3A from exposed side)</i></p>	<p>Electrical back box socket¹⁾ Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth)</p> <p>Electrical socket²⁾ Volex VX1300 (86 x 86 x 11) mm (width x height x depth)</p> <p><i>Position in flexible wall: back-to-back</i></p> <p><i>Height³⁾: 2200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight outside the electrical back box socket.</p>  <p><i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i></p>



Service	Type of service	Opening	Penetration sealing
3.4B <i>(3.4A from exposed side)</i>	Electrical back box socket ¹⁾ Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket ²⁾ Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height³⁾: 2200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight outside the electrical back box socket.  <i>note: illustration photo only (serves as an illustration of the installation of the putty pads and may not correspond with the current service)</i>

¹⁾ The electrical back box sockets are fixed to the flexible wall by means of spring action lugs with self-align, the spring lugs are tightened with screws going through plastic cover plates.

²⁾ Plastic cover plates (electrical sockets) fixed with screws with dimensions (M 3,5 x 50,0) mm to the electrical back box sockets.

³⁾ Height from the bottom edge of supporting construction to the bottom edge of the electrical socket.

More detailed information is shown in the drawings which form an integral part of test report [1].

2.5 DESCRIPTION AND PROPERTIES OF SERVICES AND PENETRATION SEAL COMPONENTS

The characteristics of seal material:

- Intumescent putty pads, type Hilti CP 617
 - manufacturer: Hilti (Gt. Britain) Ltd, No.1 Circle Square, 3 Symphony Park, M1 7FS, Manchester, GB;
 - material: a mouldable, non-setting, self-adhesive fire and smoke resistant putty in pad form for fire, smoke and acoustic sealing of electrical fitting in fire rated partition walls (synthetic rubber);
 - colour: red;
 - use category: Z₂, internal use;
 - density: 1,6 kg/l
 - application conditions: between +5 °C and +35 °C;
 - activation temperature: +140 °C.
- Electrical back box socket Centaur® CDLB1 and CDLB2-47
 - manufacturer: Centaur Manufacturing, Pipers Road, Park Farm Industrial Estate, Redditch, Worcestershire, B98 0HU;
 - description: one gang FasterFix Dry Lining Box 47 mm;
 - material: High Impact Resistant PVCu;
 - size: (74 x 73) mm for CDLB1 and (134 x 73) mm for CDLB2
 - board thickness range: 10 mm – 26 mm;
 - lug type: spring action lug.
- Electrical sockets Volex VX1300 and VX1500
 - manufacturer: Electrium Sales Limited, Walkmill Lane, Cannock WS11 0XE, GB;
 - Terminal Capacity L&N and Terminal capacity E: 3 x 1.5, 3 x 2.5, 2 x 4.0 mm²;
 - material: plastic;
 - sizes: (85 x 85 x 31) mm for VX1300 and (145 x 85 x 31) mm for VX1500 (width x height x depth);
 - nominal current: 13 A (nominal voltage: 250 V).



3. TEST REPORTS IN SUPPORT OF CLASSIFICATION

3.1 TEST REPORTS

No.	Name of laboratory	Name of sponsor	Test report No.	Date of the test	Test method	Type of the test
[1]	FIRES, s.r.o., Batizovce, SR	Hilti (Gt. Britain) Ltd., No.1 Circle Square 3 Symphony Park, M1 7FS Manchester, The United Kingdom of Great Britain and Northern Ireland	FIRES-FR- 068-24-AUNE	20. 03. 2024	EN 1366-3: 2021	A

Type of the test: A – accredited, N – non-accredited

[1] Test specimens were conditioned according to EN 1363-1 before the fire resistance test

3.2 TEST SPECIMENS

Test report No.	Samples information	Conditioning	Pre-fire tests
[1]	Sampling of component uses for an electrical socket boxes sealing, type Hilti CP 617 putty pads has carried out by Notified Body No. NB 0761, iBMB MPA Tu Braunschweig, Beethovenstr. 52, Braunschweig, D-38106, Germany, with date of 14. 02. 2024.	The specimens were stored in the hall of testing laboratory and conditioned according to EN 1363-1.	-

3.3 TEST RESULTS

No./ Test method	Parameter	Results
[1] EN 1366-3: 2021	applied load	-
	supporting construction	standard flexible wall construction (acc. to clause 7.2.2.1.2.1 of EN 1366-3 for double-sided flexible walls) with thickness of 100 mm and divided into the three sections with dimensions (1200 x 3000) mm (width x height). Flexible wall consists of steel UW profiles (50,0 x 40,0 x 0,6) mm and CW profiles (50,0 x 50,0 x 0,6) mm (width x height x thickness), two layers of gypsum boards, type F in accordance with EN 520 (manufacturer: Siniat Ogien Plus) with thickness 12,5 mm from both sides and mineral wool, type STEPLOCK HD (manufacturer: Rockwool) with a thickness of 50 mm and bulk density of 100 kg.m ⁻³ (stated by the mineral wool manufacturer). The insulation is removed to a dept of 100 mm around the penetrations (aperture edges) and a minimum of 100 mm of insulation is left along the studs (CW profiles), measured from the base plate of the stud. Both vertical edges of supporting construction (individual sections) are unrestrained (free vertical edges).
	temperature curve	standard temperature time curve



Following table contains test results for each tested service [1]:

Service	Performance criterion / Time till the performance criterion is achieved [min]	
	Integrity	Insulation
1.5B	71 minutes	62 minutes
1.4B	94 minutes	65 minutes
1.3B	105 minutes	79 minutes
1.2B	99 minutes	99 minutes*
1.1B	91 minutes	91 minutes*
2.1	121 minutes no failure	95 minutes
2.2	98 minutes	94 minutes
2.3	121 minutes no failure	94 minutes
2.4	91 minutes	91 minutes*
3.1C	93 minutes	91 minutes
3.1D	93 minutes	88 minutes
3.2C	121 minutes no failure	111 minutes
3.2D	121 minutes no failure	111 minutes
3.3B	104 minutes	88 minutes
3.4B	70 minutes	61 minutes

[1] The fire test was terminated in the 122nd minute after the consultation with test sponsor.

*Note: *The performance criteria "insulation" shall automatically be assumed not to be satisfied when the "integrity" criterion ceases to be satisfied.*



4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 7.5.7 of EN 13501-2: 2023.

4.2 CLASSIFICATION

The element, Electrical socket boxes installed in flexible wall (thickness of 100 mm) are sealed with Hilti CP 617 Intumescent putty pads and classified according to the following combinations of performance parameters and classes as appropriate.

Following table contains fire resistance classification for each service as described in test report [1]:

Service	Type of service	Opening	Penetration sealing	Fire resistance classification
1.5B <i>(1.5A from exposed side)</i>	Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 2725 mm</i>	75 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 60; EI 60
1.4B <i>(1.4A from exposed side)</i>	Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 2200 mm</i>	75 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 90; EI 60
1.3B <i>(1.3A from exposed side)</i>	Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 2200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 90; EI 60



Service	Type of service	Opening	Penetration sealing	Fire resistance classification
<p>1.2B <i>(1.2A from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 90; EI 90</p>
<p>1.1B <i>(1.1A from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 90; EI 90</p>
<p>2.1</p>	<p>Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: exposed side</i> <i>Height: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 120; EI 90</p>
<p>2.2</p>	<p>Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: unexposed side</i> <i>Height: 200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 90; EI 90</p>



Service	Type of service	Opening	Penetration sealing	Fire resistance classification
2.3	Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: exposed side</i> <i>Height: 2200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 120; EI 90
2.4	Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: unexposed side</i> <i>Height: 2200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 90; EI 90
3.1C <i>(3.1A from exposed side)</i>	Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 90; EI 90
3.1D <i>(3.1B from exposed side)</i>	Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i>	135 mm x 75 mm	Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.	E 90; EI 60



Service	Type of service	Opening	Penetration sealing	Fire resistance classification
<p>3.2C <i>(3.2A from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 120; EI 90</p>
<p>3.2D <i>(3.2B from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight inside the electrical back box socket.</p>	<p>E 120; EI 90</p>
<p>3.3B <i>(3.3A from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB1-47 (75 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1300 (86 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 2200 mm</i></p>	<p>75 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight outside the electrical back box socket.</p>	<p>E 90; EI 60</p>
<p>3.4B <i>(3.4A from exposed side)</i></p>	<p>Electrical back box socket Centaur® CDLB2-47 (135 x 75 x 47) mm (width x height x depth) Electrical socket Volex VX1500 (146 x 86 x 11) mm (width x height x depth) <i>Position in flexible wall: back-to-back</i> <i>Height: 2200 mm</i></p>	<p>135 mm x 75 mm</p>	<p>Intumescent putty pad, type Hilti CP 617 placed tight outside the electrical back box socket.</p>	<p>E 60; EI 60</p>



4.3 FIELD OF APPLICATION

This classification is valid according to EN 1366-3 for the following end use applications:

Orientation	Test results are valid only for wall orientation.
Supporting construction	<p>Construction tested:</p> <ul style="list-style-type: none"> - standard double-sided flexible wall constructions in accordance with 7.2.2.1.2.1 of standard EN 1366-3 with thickness of 100 mm. The insulation is removed to a dept of 100 mm around the penetrations (aperture edges) and minimum of 100 mm of insulation is left along the studs (CW profiles), measured from the base plate of the studs. <p>Construction covered:</p> <ul style="list-style-type: none"> - flexible wall construction according to clause 2.2 of this document; - 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; - 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; - flexible wall constructions with timber studs, constructed with at least the same number of layers as given in Table 2 of standard EN 1366-3, 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; - rigid constructions of an overall thickness equal to or greater than that of the element used in the tests and a minimum density of 350 kg.m⁻³. In case of hollow brick walls the same rules regarding aperture framing apply as for double-sided flexible walls. <p><i>(the standard double-sided flexible wall construction does not cover sandwich panel constructions and one-sided flexible wall constructions. Penetration seals in sandwich panel constructions shall be tested on a case-by-case basis)</i></p>
Service	According to clause 2.3. of this classification report, no changes are allowed.
Seal size	<p>Test results are valid for any electrical socket box size (in terms of linear dimensions: height ≤ tested, width ≤ tested, diameter ≤ tested) equal to or smaller than that tested (with and – without services), provided:</p> <ul style="list-style-type: none"> - the distances between services and between services and the aperture edge are not smaller than the minimum distances used in the test; - voids between services are sealed with the same component(s) as used in the test. <p>For penetration seals smaller than 300 mm x 300 mm or equivalent area test results obtained with penetration seals of rectangular / square shape are also valid for penetration seals with circular shape of maximum the same area and vice versa, provided at least one rectangular / square penetration seal has been included in the test.</p>
Separations	The space between the electrical socket box and the supporting construction shall remain within the tested range.
Materials*	The results of the test of a ‘standard’ plastic socket cover metallic sockets and face plates for Integrity only.

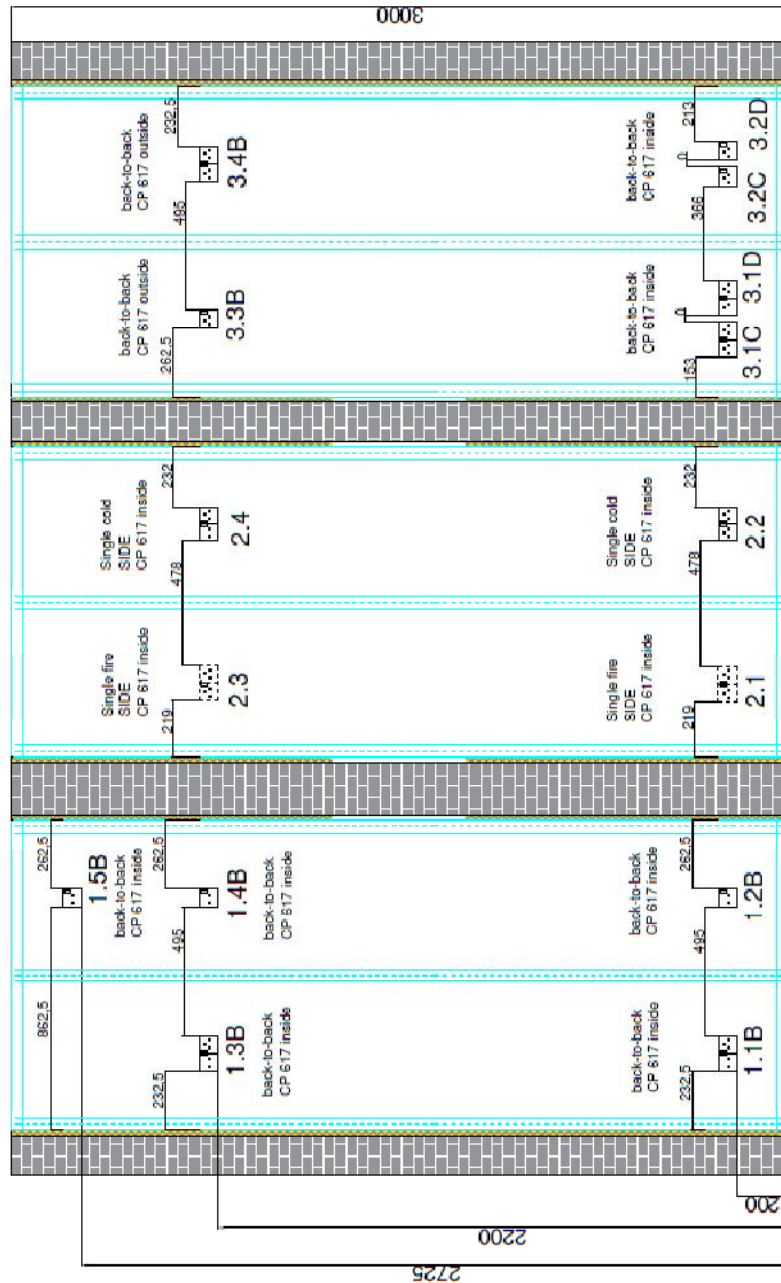


Distances

The distance between the aperture edges of penetration seals in a building element shall be as tested or minimum 100 mm. The distance between the aperture edge of a penetration seal and any other penetration (e.g. door) in a building element shall be minimum 200 mm.

The distances between services and aperture edges shall be minimum as tested or ≥ 100 mm to maintain classifications mentioned in part 4.2 of this document.

The minimum working clearances between the different service, services and the edges and height of services in supporting construction [1]:



In case of 0 mm (minimum possible installation distance between electrical back box sockets) distance between two electrical sockets, the classification is limited to:

- EI 60 for double electrical back box socket (135 x 75) mm;
- EI 90 for single electrical back box socket (75 x 75) mm.

* Note: this rule is given by the direct field of application of prEN 1366-14 (Fire resistance tests for device installations - Part 14: Partial penetration seals).



5. LIMITATIONS

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

The classification is valid provided that the product, field of application and standards and regulations are not changed.

Approved by:

Ing. Marek Gorlický
Head of the Testing Laboratory

Prepared by:

Bc. Matúš Korenko
Technician of the Testing Laboratory

