



Classification Report

The fire resistance performance of an Asymmetric, Non-Load Bearing, Partition wall assembly when classified in accordance with BS EN 13501-2: 2023

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Prepared For HEVADEX bv
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Change History

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30/06/2025	A	NS	TS	Initial Issue

Signatories

	
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*For and on behalf of United Kingdom Testing and Certification.

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1 Introduction

This classification report defines the fire resistance classification assigned to the element described in § 3 in accordance with BS EN 13501-2:2023.

2 Details of classified product

2.1 General

The element, "FLAME-EX on PU foam" is defined as an Asymmetric, Non-Load Bearing, Partition wall assembly.

2.2 Product description

The "FLAME-EX on PU foam" is a partition wall assembly consisting of a 140 x 38 mm Timber framing system with 140 mm thick Closed Cell Polyurethane foam in the cavity and a layer of intumescent paint "FLAME-EX" applied on the exposed face.

3 Supporting Evidence

The following reports(s) support this classification:

Name and Location of Laboratory	Name of Test Sponsor	Report Reference No.	Relevant Standard(s)
United Kingdom Testing and Certification Cairnmuir House Cairnmuir Road Glasgow G74 4GY	HEVADEX bv Zoomstraat 6A 9160 Lokeren BELGIUM	TR20250204-002010_B Revision B	BS EN 1364-1: 2015

4 Summary of Results

4.1 TR20250204-002010_B Revision B

TR20250204-002010_B Revision B describes a fire resistance test in accordance with BS EN 1364-1: 2015 which was carried out on 03 March 2025 by United Kingdom Testing and Certification. The test incorporated an asymmetric partition wall system which had overall nominal dimensions of 3000 mm wide by 3000 mm high by 140 mm thick. The specimen was oriented such that the FLAME-EX intumescent paint was exposed to the heating conditions.

The results of the test are summarised in Table 1

Integrity		Insulation	Radiation	Category of Performance
Sustained Flaming	23 minutes	23 minutes	24 minutes	B
Gap Gauge	24 minutes			
Cotton Pad	23 minutes			
Maximum Deflection	15 mm at 20 minutes			
100 mm Deflection	24 minutes (Not exceeded)			

*The test was discontinued after a period of 24 minutes.

Table 1

5 Classification and Field of Application

5.1 Reference to Classification

This classification has been carried out in accordance with BS EN 13501-2: 2023 § 7.5.2

5.2 Classification

The element, described in 3, is classified according to the example of the following combinations of performance parameters and classes as appropriate.

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

	15	20	30	45	60	90	120	180	240
E	X	X							
EI	X	X							
EI-M									
EW	X	X							

X	- Element is classified for that parameter combination
	- Element is not classified for this parameter combination
	- Class is not available for this parameter combination

Fire Resistance Classification
E 20*, EI 20*, EW 20*

* The above classification is for an asymmetric specimen oriented such that the “FLAME-EX” face is exposed to the heating conditions.

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

6 Field of Application

This classification is valid for the application which has been defined using the Field of Direct Application rules prescribed by BS EN 1364-1:2015 in one direction only.

Unless otherwise stated below, the construction of the of the product shall be the same as what was tested.

6.1 General

The results of the fire test are directly applicable to similar constructions where one or more of the changes listed below are made and the construction continues to comply with the appropriate design code for its stiffness and stability, except with respect to the construction types covered in Annex A (Glazed elements) and Annex B (Horizontally spanning elements) of BS EN 1364-1: 2023 where specific direct field of application rules are given.

- a. decrease in height;
- b. increase in the thickness of the wall;
- c. increase in the thickness of component materials;
- d. decrease in linear dimensions of boards or panels but not thickness;
- e. decrease in stud spacing;
- f. decrease in distance of fixing centres;
- g. increase in the number of horizontal joints, of the type tested, when tested with one joint not more than (500±150) mm from the top edge;
- h. increase in the number of vertical joints, of the type tested
- i. the use of installations such as electrical sockets, switches, etc. when tested as illustrated in Figures 9, 10 and 11 with the installations not more than 500 mm from the top edge;
- j. horizontal and/or vertical joints, of the type tested.

6.2 Extension of Width

For test specimens tested without a supporting construction, the width of an identical construction may be increased if the specimen was tested at a minimum of nominally 3 m wide with one vertical edge without restraint.

In case of EW classification, an increase in width of an identical construction is only allowed when the average unexposed surface temperature of any discrete area of the test specimen remains below 300°C or the measured radiation remains below 6 kW/m². In any other case, no increase in width is allowed.

The radiation or temperature did not exceed 6 kW/m² or 300°C respectively for a period of 23 minutes. Therefore, the width of the construction may be increased without restraint for **E 20, EI 20 and EW 20 Classifications**.

6.3 Extension of Height

The height of the construction may be increased by 1,0 m under the following conditions:

- a. minimum tested height is 3 m when tested without a supporting construction or 2,8 m when tested with a supporting construction
- b. the maximum deflection of the test specimen was not in excess of 100 mm
- c. the expansion allowances are increased pro-rata

In case of EW classification, an increase in height of an identical construction is only allowed when the average unexposed surface temperature of any discrete area of the test specimen remains below 300°C or the measured radiation remains below 6 kW/m². In any other case, no increase in height is allowed.

The deflection did not exceed 100 mm for a period of 23 minutes and radiation, or temperature did not exceed 6 kW/m² or 300°C respectively after a period of 23 minutes. Therefore, the height of the construction may be increased to 4 meters for **E 20, EI 20 and EW 20 Classifications**.

7 Limitations

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

This classification is only valid for the direction stated in § 3.1 (Asymmetric Only)

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The specification and interpretation of the standard methods employed to produce this classification report are the subject of ongoing development and refinement. This classification report has been prepared based on the test data and the content of the relevant part(s) of BS EN 13501-2 at the time of issue. It is the responsibility of the sponsor of this report to consider its validity on an ongoing basis.

United Kingdom Testing & Certification Limited reserves the right to withdraw this report at any time.