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FIRE RESISTANCE CLASSIFICATION EI 90

in accordance with the procedures given in EN13501-2: 2007+A1: 2009:

assigned to the setup: WALL [12]PANEL

12 PANEL™
uniBoard

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uniBoard

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1 Details of classified product

1.1 General

The element – type: WALL [12]PANEL is defined as a non-loadbearing partition wall.

1.2 Description

The Wall [12]PANEL is described below in support of this classification. The drawings of test element as it was tested are shown in the appendices 1 and 2 of this classification report.

1.3 Composition of the test specimen

The test specimen is a non-load bearing partition wall comprising a metal frame and four layers of [12]PANEL magnesium oxide boards enclosing a layer of insulation material in the centre.
The test specimen is symmetrical.

Outer dimensions of the test specimen:

Height: **3000 mm**
Width: **3000 mm**
Thickness: **111 mm**

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1.3.1 Metal frame

The metal frame is composed of horizontal U-profiles at the upper and lower horizontal edge connection. In between these, the vertical C-profiles are installed. These profiles are fixed with hammer nail anchors.

Table 1.3.1

Element	Identification	Characteristics	Fixing
U-profiles	Galvanized steel	Dimensions: (40 x 75 x 40) mm Length: 2960 mm - Thickness: 0.6 mm	Hammer nail anchor - material: nylon PA6 / zincified steel - diameter: 8 mm - length: 60 mm
C-profiles	Galvanized steel	Outer section dimensions: (6 x 49 x 73.8 x 51 x 6) mm - Length: 2980 mm - Thickness: 0.6 mm	Hammer nail anchor -material: nylon PA6 / zincified steel - diameter: 8 mm - length: 60 mm

1.3.2 Lining

Each side of the wall comprises one each of:

1. Magnesium oxide board – type: WALL [12]PANEL A1927RSE (9 mm straight edge board)
2. Magnesium oxide board – type: WALL [12]PANEL A1924RITE (9 mm tapered edge board)

The vertical joints are located on the C-profiles. Each layer has a horizontal joint. The joints from each layer are mounted in a staggered manner. The mounting pattern is symmetrical. The boards are fixed to the metal profiles with black steel phosphated screws (fasteners). The insulation layer is in the centre.

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1.3.3 Insulation

Table 1.3.3			
Element	**Identification**	**Characteristics**	**Fixing**
Insolation material	Rockwool Rockfit 433 Mono - Mineral rock wool	Panel dimensions: (1000 x 800 x 60) mm - Density: 37.70 kg/m3 - 45kg/m3	Slightly clamped between the flanges of the metal frame

1.3.4 Finishing products

The visible joints are enforced with self-adhesive fiberglass mesh tapes and covered with the [12]PANEL Filler. The [12]PANEL filler is also applied on all visible screw heads and joints.

2 Classification and field of application

2.1 Reference of classification

This classification has been carried out in accordance with clause 7 of EN 13501- 2:2007+A1: 2009.

2.2 Classification

The element WALL [12]PANEL is classified according to the following combinations of performance parameters and classes as appropriate. No other classifications are permitted.
The classifications are valid for both sides of the wall.

EI 90, EI 60, EI 45, EI 30, EI 20, EI 15

EW 90, EW 60, EW 30, EW 20

E 90, E 60, E 30, E 20

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2.3 Field of direct application

This classification is valid for the following end use applications according to EN 1364-1:2015.

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 rigidity and stability:

a) Unlimited increase and decrease of the width of the wall;

b) Unlimited decrease in height of the wall (≤ 3000 mm);

c) Increase in height of the wall by 1m (≤4m), if the expansion allowances are increased pro-rata;

d) Increase in the thickness of the wall (≥ 111 mm);

e) Increase in the thickness of component materials:

– increase of the profile width (≥ 75 mm);
– increase of the thickness of the plasterboards (≥ 9 mm);

f) Decrease in linear dimensions of panels, but not thickness:

– width (≤ 1200 mm);
– height (≤ 2700 mm);

g) Decrease in stud spacing (≤600mm);

h) Decrease in distance of fixing centres:

– between the edge profiles and the surrounding construction (≤500 mm);
– between the 1st layer of boards and the metal frame (≤ 600 mm);
– between the 2nd layer of boards and the metal frame (≤ 300 mm);

I) Increase in the number of horizontal joints;

j) Only horizontal and vertical joints (of the type tested) are permitted.

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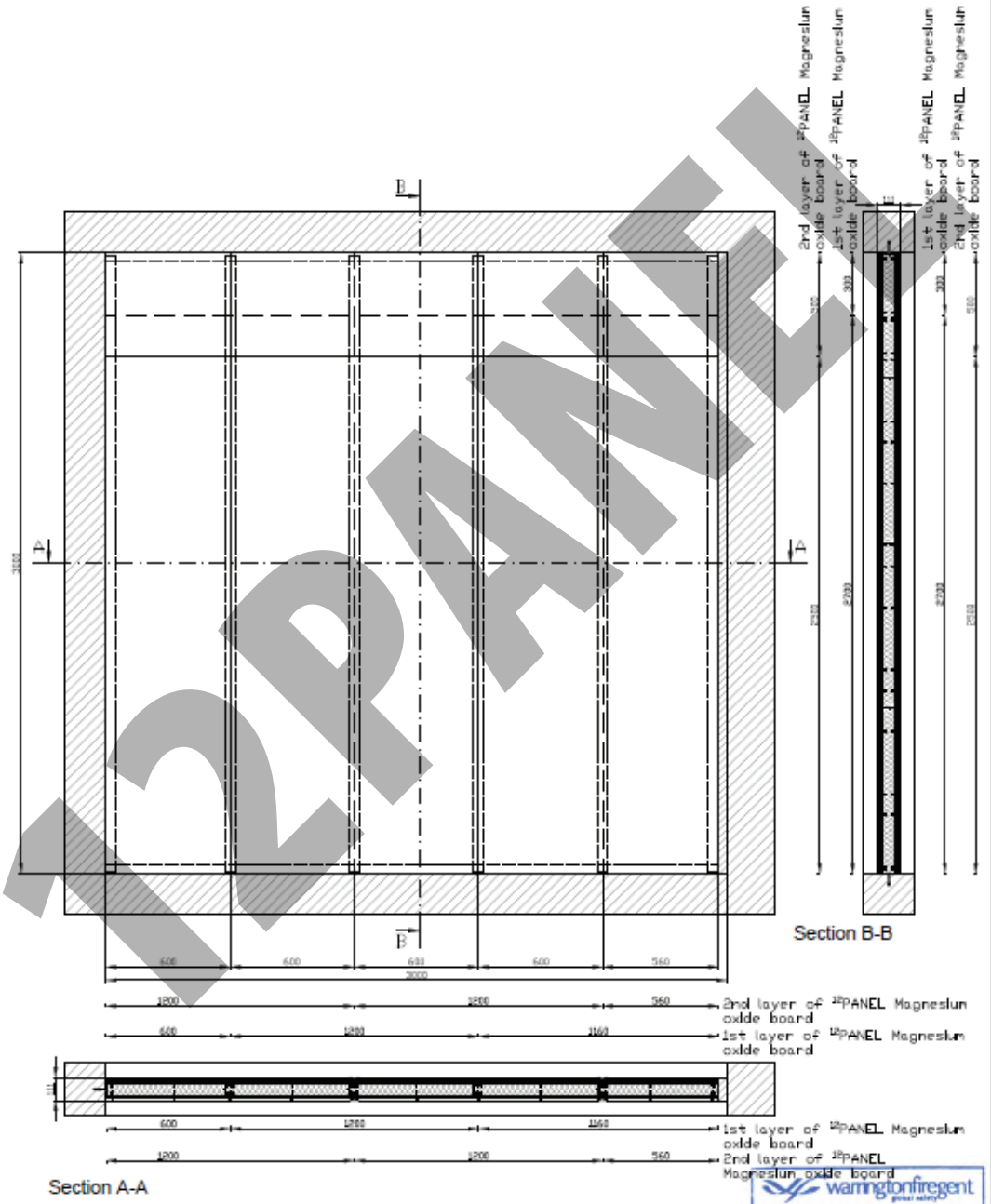
Classificatierapport/Rapport de classement/Classification report/Klassifizierungsbericht Nr 177518
Bijlage/Annexe/Annex/Anlage: 1

Front view - sections A-A and B-B - dimensions



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Classificatierapport/Rapport de classement/Classification report/Klassifizierungsbericht Nr 17751B
Bijlage/Annexe/Annex/Anlage: 2

Sections A-A and B-B - details