

CLASSIFICATION OF FIRE RESISTANCE PERFORMANCE IN ACCORDANCE WITH EN 13501-2:2007+A1:2009

Sponsor: DELTA TOPRAK SANAYİ VE TİCARET A.Ş.,
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DÜZCE / TURKEY

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Notified Body No: 1234

Product name: Non-load bearing wall consisting of "DELTA"
Insulation bricks

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This classification report consists of 7 pages and may only be used in its entirety.

1. Introduction

This classification report defines the classification in accordance with the procedures given in EN 13501-2:2007+A1:2009, assigned to a wall constructed from "DELTA" insulation bricks.

2. Details of the classified product

2.1 General

The examined wall construction was assembled from:

- Cement based joint adhesive;
- Hollow bricks

For the dimensions and the specifications of the materials and components of the examined construction, see figures 1 till 3

Detailed information regarding the materials, used in the construction, is described in the next paragraphs

2.2 Description of the tested wall

The wall was comprised of 15 hollow bricks at horizontal axis and 22 hollow bricks at vertical axis. One skewback was used at each horizontal level with dimension of 91 mm. At the horizontal axis 15 joints were used with 6 mm thickness and 1 last joint with 9 mm thickness. At vertical axis 21 joints with 8 mm thickness and 2 last joints with 8 mm thickness were used. See, Figure 1 and Figure 2.

2.3 Bricks

Dimension of a brick was 128 x 184 x 184 mm and the weight of one piece is approximately 3 kg.

2.4 Adhesive

Cement based and hydraulic binder modified "YURTBAY Brick mortar" was used at the joints. Proportion of water:powder of mortar was 1:5.

2.5 Method of assembly

The wall construction was assembled in the following order:

- Adhesive was mixed with water and applied on the supporting blocks of test frame
- Bricks were placed side by side at first level
- Second level started with a skewback brick
- Mortar was used between each bricks and layers.

3. Test reports and extended application reports supporting the classification

3.1 Test reports/extended application reports

Name of laboratory	Name of sponsor	Test reports / extended application report nos.	Test method / extended application rules & date
Efectis Era Avrasya Test ve Belgelendirme A.Ş.	DELTA TOPRAK SANAYİ VE TİCARET A.Ş.	2012-Efectis-R0413	EN 1364-1:1999

3.2 Test results

Integrity, (E) - Cotton pad - Gap gauges Ø 6 mm Ø 25 mm - Flames longer than 10 sec.	122 minutes no failure (not applied) 122 minutes no failure (not applied) 122 minutes no failure (not applied) 122 minutes no failure
Insulation, [I] - average temperature - maximum temperature	122 minutes no failure 122 minutes no failure
The heating was terminated after 122 minutes after consulting the client.	

4. Classification and field of application

4.1 Reference of classification

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

4.2 Classification

A wall consisting of "DELTA" insulation bricks is classified according to the following combinations of performance parameters and classes.

Fire resistance classification:

EI120

4.3 Field of application

This report details the method of construction, the test conditions and the results obtained when the specific element of construction described herein was tested following the procedure outlined in EN 1363-1 and when appropriate EN 1363-2. Any significant deviation with respect to size,

constructional details, load stress, edge or end conditions other than those allowed under the field of application in the relevant test method is not covered by this report.

4.3.1. General

The test results as summarized in chapter 3.2 are only valid for - *DELTA insulation bricks* – which are the same in detail as the tested structure and which comply with the following conditions:

- decrease in height
- increase in wall thickness
- increase in thickness of materials
- reduction in linear dimensions of panels, but not thickness
- reduction of distance of joints

4.3.2. Extension of height

The height of the construction may be increased to 4 meters for a fire resistance of 120 minutes, because the lateral deflection of the construction is less than 100 mm

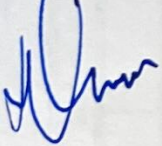
4.3.3 Extension of width

The width of an identical construction may be increased, because the construction is tested with a width of 3 meters with one vertical free edge.

5. Limitations

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

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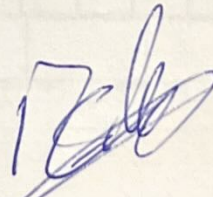


Onur DAĞ



P.W.M. Kortekaas

APPROVED



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Drawings

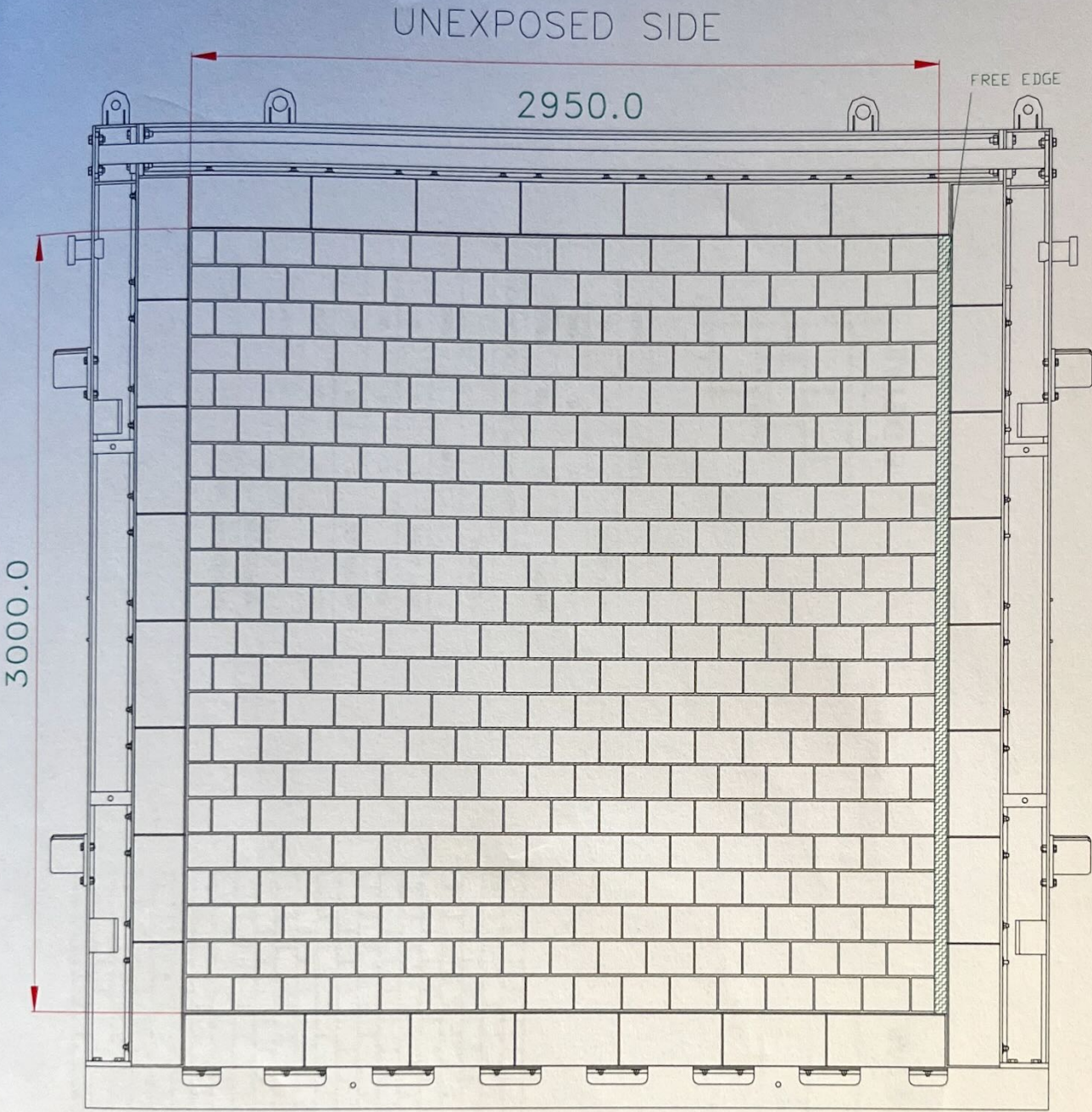
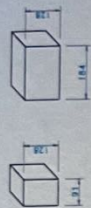
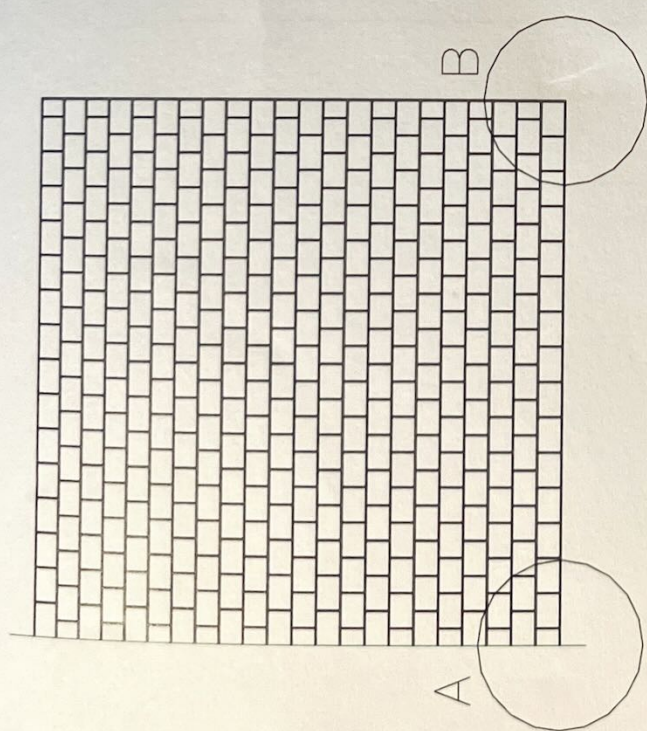


Figure 1



DIMENSIONS mm

HORIZONTAL			
	QUANTITY	SIZE	DIMENSION
BRICK	15	184	2760
SKEWBACK	1	91	91
JOINT	15	6	90
LAST JOINT	1	9	9
TOTAL			2950
VERTICAL			
	QUANTITY	SIZE	DIMENSION
BRICK	22	128	2816
JOINT	21	8	168
LAST JOINT	2	8	16
TOTAL			3000

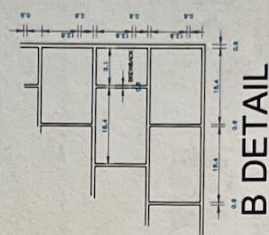
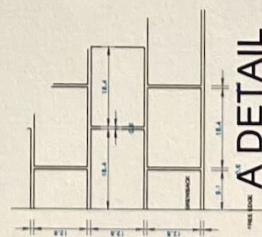


Figure 2

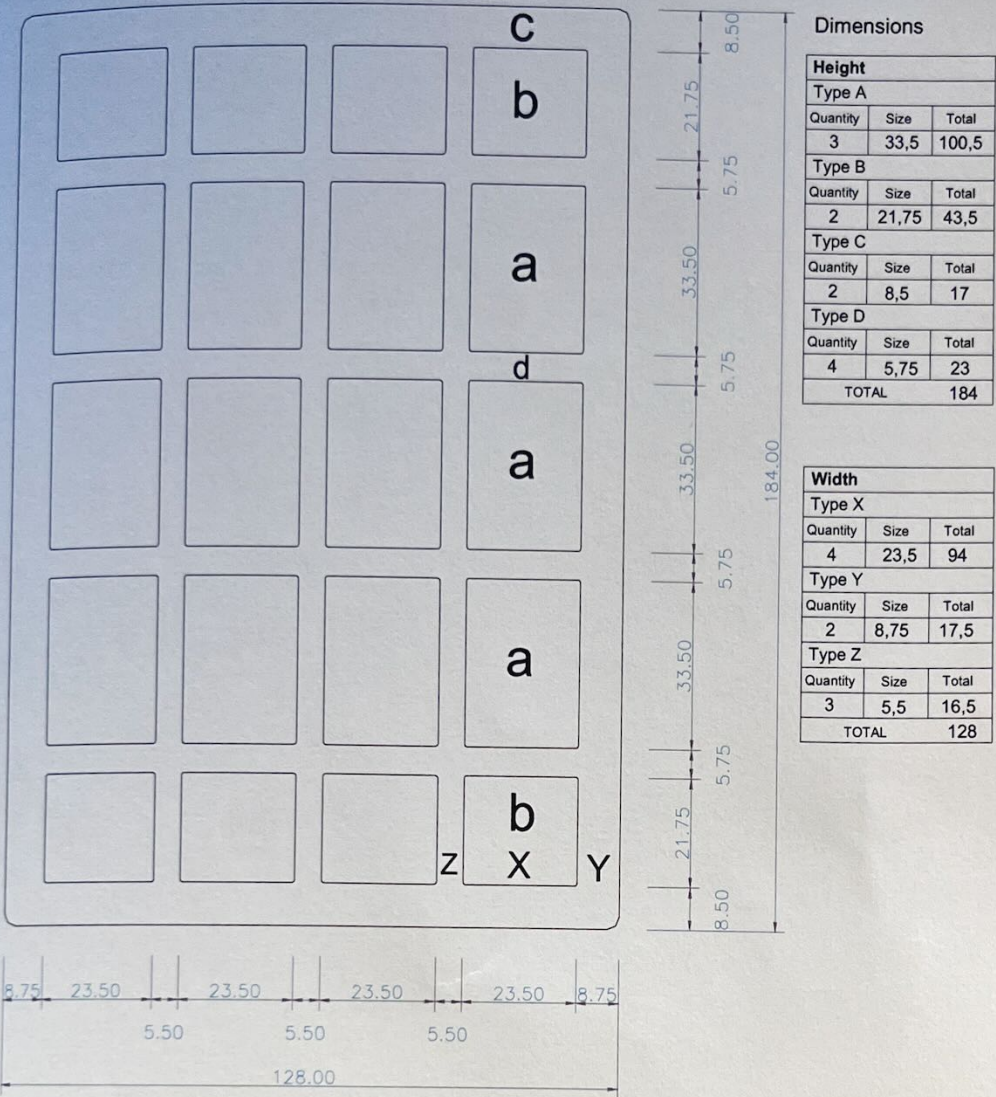


Figure 3