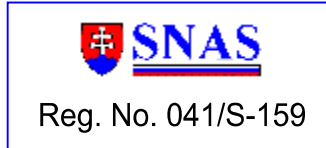


CLASSIFICATION OF FIRE RESISTANCE FIRES-CR-005-15-AUPE

Loadbearing wall Frame Factory, type FF REI60

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CLASSIFICATION OF FIRE RESISTANCE IN ACCORDANCE WITH EN 13501-2: 2007 + A1: 2009 with direct field of application

FIRES-CR-005-15-AUPE

Name of the product: Loadbearing wall Frame Factory, type FF REI60

Sponsor: FRAME FACTORY Sp. z.o.o.,
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97-400 Bełchatów,
Poland

Prepared by: FIRES, s.r.o.
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Slovak Republic

Tested property: Fire resistance
Test method: EN 1365-1:2012/AC:2013
Type of test: Accredited

Task No.: PR-14-0392
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1. INTRODUCTION

This classification report defines the resistance to fire classification assigned to element Loadbearing wall Frame Factory, type FF REI60 in accordance with the procedures given in EN 13501-2: 2007 + A1: 2009.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, Loadbearing wall Frame Factory, type FF REI60, is defined as a loadbearing wall with a fire separating function.

2.2 PRODUCT DESCRIPTION

Overall thickness of wall: 194 mm

: **Construction of wall** is made of vertically oriented steel C-channel stud profiles (150 x 39/41 x 11) mm made of cold rolled steel sheet 1,6 mm mm thick, grade of S350GD Z275 and 4 horizontally oriented framing steel C-channel profiles (150 x 39/41 x 11) mm made of cold rolled steel sheet 1,6 mm mm thick, grade of S350GD Z275

Vertical C profiles are placed at the edges of wall and next in spacing 550 mm - 530 mm. Horizontal C profiles are placed at the horizontal edges of wall, 560 mm from the top of wall and 1200 mm from the bottom of wall.

C profiles are produced with the service holes with dimensions: two holes \varnothing 34,2 mm at the top of wall in distance 200 mm and 300 mm from the top and three holes \varnothing 34,2 mm at the bottom of wall placed 300 mm, 400 mm and 500 mm from the bottom edge.

Profiles are jointed together by steel screws Lox (\varnothing 4,8 x 19) mm (manufacturer: Grabber) placed from both faces of wall:

: **Construction of wall is covered** by two layers of boards MgO Green (manufacturer: LS Tech-Homes S.A), each 11 mm thick, with bulk density 946 kg/m³ on the both wall faces.

The boards of the first layer of MgO Green boards are fixed to the C profiles by means of steel screws TN EVOLUTION (\varnothing 4,2 x 42) mm, the boards of second layer of MgO boards are fixed to the C profiles by means of steel screws TN EVOLUTION(\varnothing 4,2 x 60) mm.

The screws are placed at the edges of boards and next in spacing 510 mm. Individual boards are fixed with dilatation gaps 8 mm – 10 mm.

The joints of MgO Green boards of each layer are covered by mastic CEKOL[®] C-40 (manufacturer: CEDAT Sp. z o.o.), with using of the glass fiber tape 10 cm wide.

: **The core of wall** is filled by glass-mineral wool insulation TP 116 Acubard with ECOSE Technology with bulk density 15,4 kg/m³ (manufacturer: Knauf Insulation).

More detailed information about product construction is shown in drawings [1].



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
[1]	FIRES, s.r.o., Batizovce, SR	FRAME FACTORY Sp. z.o.o., Poland	FIRES-FR- 193-14-AUNE	22. 10. 2014	EN 1365- 1:2012/AC: 2013

[1] Test specimen was conditioned according to EN 1363-1 before the fire resistance test

3.2 TEST RESULTS

No./ Test method	Parameter	Results	
[1] EN 1365-2	applied load	axial loading - 30 kN/m	
	supporting construction	-	
	temperature curve	standard temperature time curve	
	loadbearing capacity	70 minutes no failure	
	integrity	cotton pad	70 minutes no failure
		gap gauges	70 minutes no failure
		sustained flaming	70 minutes no failure
	thermal insulation I	70 minutes no failure	
	Radiation (15 kW.m ⁻²)	70 minutes no failure	
	Impact resistance test	---	
other parameters	symmetric construction of the specimen, both edges of specimen are free		

[1] The fire test was terminated after period of 70 minutes at the request of sponsor

4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 REFERENCE OF CLASSIFICATION

This classification has been carried out in accordance with clause 7.3.2 of EN 13501-2: 2007 + A1: 2009.

4.2 CLASSIFICATION

The element, **Loadbearing wall Frame Factory, type FF REI60**, is classified according to the following combinations of performance parameters and classes as appropriate.

**Fire resistance classification:
REI 60**



4.3 FIELD OF APPLICATION

This classification is valid according to EN 1365-1:2012/AC:2013 for the following end use applications:

Dimensions of wall and insulation boards	Maximal height of wall is 3000 mm; Decrease in height is allowed; Increase in the width of wall is allowed; Increase in the thickness of the wall is allowed; Increase in the thickness of component materials is allowed; Decrease in linear dimensions of boards is allowed, but not thickness;
Fixation of materials	Decrease in stud spacing when insulation boards are fixed is allowed; Decrease in distance of fixing centres is allowed; Increase in the number of horizontal joints of boards;
loading	Decrease in the applied loading, as tested, is allowed; Only axial loading of wall is allowed;

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:

Signed:

Ing. Štefan Rástocký
leader of the testing laboratory



Michaela Gorlická
technician of the testing laboratory