PEUTZ

Laboratory for Fire Safety

Classification of the fire resistance in accordance with EN 13501-2:2016 of a wooden floor construction made of SINH Board

Classification report

Report number YA 1891-2E-RA d.d. January 18, 2018

Laboratory for Fire Safety

Classification of the fire resistance in accordance with EN 13501-2:2016 of a wooden floor construction made of SINH Board

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Notified body	NB 2264
Product name	Wooden floor construction made of SINH Board
Report number	YA 1891-2E-RA
Date of issue	January 18, 2018
Reference	JZ/MvD//YA 1891-2E-RA
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This classification report, containing 8 pages and an Appendix containing 1 page, can only be used and reproduced as an entity.

1 Introduction

This classification report defines the fire resistance classification assigned to a wooden floor construction made of SINH Board. The system was tested in the Peutz Laboratory for Fire Safety in Mook according to the standard heating curve and in accordance with the procedures given in EN 13501-2:2016.

For performing the testing and classification, the Laboratory for Fire Safety is recognized by the "Stichting Raad voor Accreditatie" (RvA).

The RvA is member of the EA MLA (**EA MLA**: **E**uropean **A**ccreditation Organisation **M**ulti**L**ateral **A**greement: http://www.european-accreditation.org).

EA: "Certificates and reports issued by bodies accredited by MLA and MRA members are considered to have the same degree of credibility, and are accepted in MLA and MRA countries."

2 Details of the classified system

2.1 General

The element, a wooden floor construction, is defined as loadbearing floor with fire separating function according EN 13501-2:2016, paragraph 7.3.3. The floor has been classified for the fire applied from below only.

2.2 Product description

The element, a wooden floor construction made of SINH Board, is fully described in the test report listed in table 3.1.

The element consists of a floor made of wooden joists with on top spruce floorboards, thickness 18 mm. On top of the floorboards a 10 mm felt made from coconut fibers, with two layers of SINH Board, has been mounted. SINH Boards of 1200 x 600 mm, first layer of 6 mm thick, second layer of 18 mm thick, has been used.
Under the wooden joists, strips of SINH Board 9 mm x 150 mm, has been mounted. Against these strips a ceiling of 9 mm thick, 1200 x 2700 mm SINH Boards has been mounted. The cavity between the wooden joists has been filled with stone wool blankets, type Rockwool 210(Rocksono Base), thickness 50 mm.

3 Reports and test results in support of the classification

3.1 Used reports

An overview of the reports used is given in Table 3.1. The client has stated that the stated report provided may be used for this classification report.

t3.1 Used reports

Name of laboratory	Name of sponsor	Reports reference number and date	Used methods
Peutz B.V.	SINH Building Solutions	Test report Y 1891-1-RA-001 d.d. 11 januari 2018	EN 1363-1:2012 EN 1365-2:2014

3.2 Test results

The construction has been tested using the standard heating curve as defined in EN 1363-1:2012 with heating from below. At request of the sponsor an extra load of 150 kg/m^2 has been applied during the test (146.6 kg/m^2 measured). For the purpose of the supporting construction a frame work made of aerated concrete (class G4/600), respectively 200 mm high in vertical direction and 150 mm thick in the longitudinal direction, has been used.

The summary of the test results achieved is shown in Table 3.2. The test was finished after 64 minutes, all criteria has been attained.

t3.2 Test results

Test standard	*Parameter*	*Result*
EN 1363-1:2012 and EN 1365-2:2014	Loadbearing capacity (R)	63 min
	Integrity (E)	63 min
	Thermal insulation (I)	63 min

4 Classification and field of application

4.1 Reference of classification

This classification has been carried out in accordance with Clause 7.3.3 of EN 13501-2:2016.

4.2 Classification

The element, a wooden floor construction, is classified according to the following combinations of performance parameters and classes as appropriate.

Fire resistance classification
REI 60 RE 60

4.3 Field of application

This classification is valid for the end use applications as described below. The field of application is based on the direct field of application in accordance with the test standard EN 1365-2:2014. The test results are directly applicable to a similar untested floor construction with the following end use applications.

4.3.1 Construction element

The span of the construction may be increased or decreased, the spacing of the deep space joists may be decreased, or the depth of the deep pace joists increased, provided that the maximum moments and shear forces on the deep space joists, considering the load applied in practise, are not greater than those tested, when calculated on the same basis in the fire condition.

4.3.2 The dimension crosswise to the span direction

The dimension perpendicular to the span direction may be increased or decreased provided that the spacing of the deep space joists is not greater than that tested.

4.3.3 Boards of the ceiling

The maximum size of boards of the ceiling may be increased up to 2750 x 1250 mm, provided that the number of fixings per square meter remains at least the same as tested.

4.3.4 Cavity

The height of the cavity between the ceiling and the flooring may be increased but with a minimum deep space joists height of 195 mm. No extra material may be added to that cavity, other than used during the test.

5 Limitations

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

Mook,

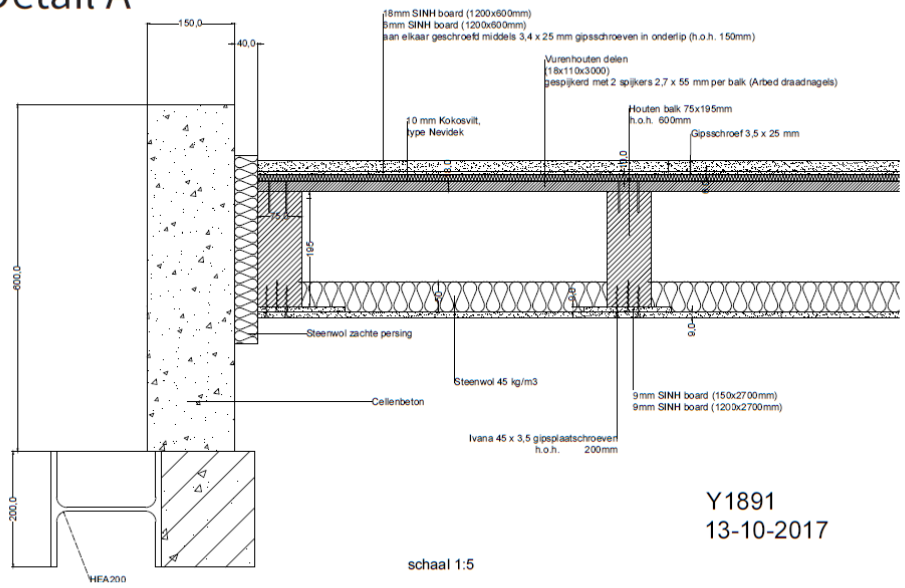
BSc D.J. den Boer

Management

This report contains 9 pages including 1 appendix:
Appendix 1 Drawing of the test specimen (1 page).

Appendix 1 Drawing of the test specimen

Detail A



Detail B