

Resistance to fire Classification report

Loadbearing floor

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1 OWNER

AEBO A/S
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2 INTRODUCTION

This classification report defines the classification assigned to the product in accordance with the procedures given in DS/EN 13501-2:2007+A1:2009.

The product designation is SL-dækket.

3 DETAILS OF CLASSIFIED PRODUCT

3.1 GENERAL

The element is defined as a loadbearing floor.

Its classification is valid for the following end use application: Loadbearing floor.

3.2 PRODUCT DESCRIPTION

The test specimen was a prestressed concrete and light weight concrete deck element.

The deck element had a free span and exposed length of 6000 mm.

The deck element had reinforcement steel bars, 23 in total, 19 of them was prestressed.

The details of the product are described in DBI test report PGA10324.

4 TEST REPORTS AND TEST RESULTS IN SUPPORT OF THIS CLASSIFICATION

4.1 FIRE RESISTANCE TEST REPORT

Name of Laboratory	Name of sponsor	Test report File No. and date	Test method	Date of test
Danish Institute of Fire and Security Technology	AEBO A/S	PGA10324, 2014-06-10	EN1365-2 :1999	2014-05-01

4.2 TEST RESULTS

Test report PGA10324:

The test specimen was beside its own load, loaded with a total of 75.8kN corresponding to a uniform load of 5.3 kN/m². The load was applied to the test specimen in 2 lines positioned in the quarter points of the span length.

Test duration	Parameter	Results
241 minutes	<u>Loadbearing capacity</u>	
	- Loadbearing capacity:	No failure
	- Deformation criterion:	No failure
	<u>Integrity</u>	
	- Time of ignition of cotton pad:	No failure
	- Time of occurrence of sustained flaming:	No failure
	- Time of failure of gap gauge criterion:	No failure
	<u>Insulation</u>	
	- Time after which the average temperature rise at the unexposed surface exceeds 140 °C:	No failure
	- Time after which the maximum temperature rise at the unexposed surface exceeds 180 °C:	No failure

4.3 SUPPLEMENTARY DOCUMENTATION

5 CLASSIFICATION AND FIELD OF APPLICATION

5.1 REFERENCE

This classification has been carried out in accordance with clause 7.3.3 of DS/EN 13501-2:2007+A1:2009.

5.2 CLASSIFICATION

The resistance to fire classification for the deck element is: **REI 240** on condition

- that the deck element is supported as for the test specimen,
- that the internal forces in the deck element does not exceed the internal force that was tested,


5.3 FIELD OF APPLICATION

This classification is valid for the following end use conditions for the deck element:


- The maximum moments and shear forces, which when calculated on the same basis as the test load, shall not be greater than those tested.

6 LIMITATIONS

This document does not represent type approval or certification of the element.


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