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Reaction to fire classification report

1 Introduction

This classification report defines the classification assigned to a suspended ceiling product in accordance with the procedure given in EN 13501-1:2007.

2 Details of classified product

2.1 General

The product is defined as a suspended ceiling product. Its classification is valid for linings.

2.2 Product description

According to information provided by the client, the product has the following composition:

Suspended ceiling system that consists of lacquered or non lacquered metal plates, perforated and non-perforated. The plates can also be used in combination with a sound absorption mat. A mineral wool insulation can be loosely applied behind the metal plates. The system is used in different combinations as given below.

1. Aluminium/steel plate with thickness 0.6 mm, bended inwards at the edges, white painted with "Webal unglack vit NCS 0500".
2. Aluminium/steel plate with thickness 0.6 mm, bended inwards at the edges, white painted with "Webal unglack vit NCS 0500". The plate was perforated with 10 x 10 mm openings. The total opening area was approximately 50%. A black sound absorption mat called "Glass fibre mat R6/60" was glued to the back of the perforated plate (nominal glue amount 15 g/m²), inside the bended edges.
3. Aluminium/steel plate with thickness 0.6 mm, bended inwards at the edges, white painted with "Webal unglack vit NCS 0500". The plate was perforated with 10 x 10 mm openings. The total opening area was approximately 50%. A black sound absorption mat called "Glass fibre mat R6/60" was glued to the back of the perforated plate (nominal glue amount 15 g/m²), inside the bended edges. Mineral wool insulation was applied behind the absorption mat, outside the bended edges of the plate.

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3. Test reports & test results in support of classification

3.1 Test reports

This classification is based on the test reports listed below:

Name of laboratory	Name of sponsor	Test report ref no	Accredited test method
SP	Itaab Trading AB	P908159	EN 13823
SP	Itaab Trading AB	F908385	EN ISO 1716

3.2 Test results

The test results listed below show the worst case as found in the test programme performed and reported according to the table above.

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN 13823		5		
	<i>FIGRA</i> _{0,2MJ} (W/s)		0	Compliant
	<i>FIGRA</i> _{0,4MJ} (W/s)		0	Compliant
	<i>LFS</i> < edge		(-)	Compliant
	<i>THR</i> _{600s} (MJ)		0.8	Compliant
	<i>SMOGRA</i> , (m ² /s ²)		0	Compliant
	<i>TSP</i> _{600s} (m ²)		31	Compliant
Flaming droplets/particles	(-)	No flaming droplets/particles		
EN ISO 1716		9		
	<i>PCS</i> (MJ/m ²) (2)		0.6	Compliant
	<i>PCS</i> (MJ/m ²) (3)		0.3	Compliant
	<i>PCS</i> (MJ/m ²) (3)		0.9	Compliant
	<i>PCS</i> (MJ/kg) (4)	1.0	Compliant	

(-) : not applicable

(2): for non-homogeneous products the parameter for each external non-substantial component is given

(3): for non-homogeneous products the parameter for each internal non-substantial component is given

(4): the parameter for the product as a whole

4 Classification and field of application

4.1 Reference and direct field of application

This classification has been carried out in accordance with clause 11 and 15 of EN 13501-1:2007.

4.2 Classification

The suspended ceiling system in relation to its reaction to fire behaviour is classified:

A2

The additional classification in relation to smoke production is:

s1

The additional classification in relation to flaming particles/droplets is:

d0

The format of the reaction to fire classification for construction products excluding floorings and linear pipe thermal insulation product is:

Fire Behaviour		Smoke Production			Flaming Droplets	
A2	-	s	1	,	d	0

Reaction to fire classification: *A2-s1,d0*

4.3 Field of application:

This classification is valid for the following product parameters:

Product parameters:

The plate consists of lacquered aluminium or steel, with nominal thickness ≥ 0.6 mm.
The plate is perforated or non-perforated (maximum 50% perforation).
The plate can have an absorption mat (Glass fibre mat R6/60), glued to the back.
Mineral wool of at least class A2-s1,d0 can be applied behind the plate.
See also product description in clause 2.2 in this report.

This classification is valid for the following end use conditions:

Substrates:

Any end use substrate of Euroclasses A1 or A2 at least 6 mm thick, having a density ≥ 820 kg/m³.

Mounting:

The product can be loosely placed or mechanically fixed to a metal framework that is suspended from a ceiling, i.e. mounted with a void.

The sample was delivered by the client. SP Fire Technology was not involved in the sampling procedure.

5 Limitations

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

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