

Llentab AB
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Reaction to fire classification report

1 Introduction

This classification report defines the classification assigned to the product "Llentab sandwichpanel" in accordance with the procedure given in EN 13501-1:2007.

2 Details of classified product

2.1 General

The product "Llentab sandwichpanel" is defined as a self-supporting double skin metal faced insulation panel. According to the owner of this classification report, this product comply with the European product specification EN 14509:2006.

2.2 Product description

Self-supporting double skin metal faced insulation panel called "Llentab sandwichpanel". The panel consists of a core of stone wool covered with coated steel sheets on both sides. The steel sheets are glued to the core with adhesive of polyurethane.

3 Test reports & test results in support of classification

3.1 Test reports

This classification is based on test reports listed below:

Name of laboratory	Name of sponsor	Test report ref no	Test method
SP	Llentab AB	PX00023	EN 13823
SP	LLlentab AB	PX13986	EN 13823
SP	Llentab AB	PX00023	EN ISO 11925-2

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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. The tests have been carried out on products covering the construction, density and thickness range of the product group. The product standard EN 14509:2006 has been applied in the process of selecting suitable products for testing.

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN ISO 11925-2		18		
Edge/Surface flame attack				
30 s exposure	$F_s \leq 150 \text{ mm}$		(-)	Compliant
Flaming droplets/particles	Ignition of filter paper		(-)	No ignition of filter paper
EN 13823		7		
	$FIGRA_{0,2MJ} \text{ (W/s)}$		0	Compliant
	$LFS < \text{edge}$		(-)	Compliant
	$THR_{600s} \text{ (MJ)}$		0.2	Compliant
	$SMOGRA \text{ (m}^2/\text{s}^2\text{)}$		0	Compliant
	$TSP_{600s} \text{ (m}^2\text{)}$		21	Compliant
	Flaming droplets/particles		(-)	No flaming droplets/particles
(-) : not applicable				

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 and Annex C of EN 14509:2006.

4.2 Classification

The product called "Llentab sandwichpanel" in relation to its reaction to fire behaviour is classified:

B

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	
B	-	S	1	,	d	0

i.e. A1 to F (as applicable) – s1, 2 or 3 (as applicable), d0, 1 or 2 (as applicable)

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

4.3 Field of application:

This classification is valid for the following product parameters:

- Metal facing: All grades of steel metal with nominal thickness ≥ 0.5 mm.
- Surface coatings: All coatings with PCS value ≤ 4 MJ/m².
- Joint design: Standard joint design or "Secret fix".
- Adhesive: PUR based adhesive, nominal amount 200 g/m².
- Stone wool insulation core: Nominal density 72 kg/m³ - 132 kg/m³ and PCS value ≤ 1.5 MJ/kg.
- Nominal panel thickness: 100-300 mm.
- Orientation of panel: Vertical or horizontal.
- Metal corner flashings: width ≥ 50 mm and thickness ≥ 0.5 mm with metal and surface coating as describe above. Fixed every 400 mm or less.
- Seals: No seals or type "Sika lastomer 710" or EPDM cellular rubber profile.

This classification is valid for the following end use conditions:

- Freestanding

5 Limitations

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

SP Technical Research Institute of Sweden Fire Technology - Fire Dynamics

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