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## Reaction to fire classification report

### 1 Introduction

This classification report defines the classification assigned to the product “EcoSund®” in accordance with the procedure given in EN 13501-1:2007.

### 2 Details of classified product

#### 2.1 General

The product “EcoSund®” is defined as an acoustic insulation.

#### 2.2 Product description

According to the client:

Product called “EcoSund®”, having a nominal thickness of 20 mm or 50 mm. The product consists of a surface layer of nonwoven polyester fibres called “CM”, having a nominal area weight of 80 g/m<sup>2</sup> or 130 g/m<sup>2</sup>, and a substrate layer of a varying mixture of polyester fibre and plant fibre. The substrate layer has a nominal density of 45 kg/m<sup>3</sup> and 25 kg/m<sup>3</sup>. Only sheets, having the specifications listed in Table 1, are produced.

Table 1. Products.

Product name	Thickness of the whole product	Area weight of the surface layer	Density of the substrate layer
Specification 1	20 mm	80 g/m <sup>2</sup>	45 kg/m <sup>3</sup>
Specification 2	20 mm	130 g/m <sup>2</sup>	45 kg/m <sup>3</sup>
Specification 3	50 mm	80 g/m <sup>2</sup>	25 kg/m <sup>3</sup>
Specification 4	50 mm	130 g/m <sup>2</sup>	25 kg/m <sup>3</sup>

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### 3 Test reports & test results in support of classification

#### 3.1 Test reports

This classification is based on the test report listed below:

Name of laboratory	Name of sponsor	Test report ref no	Accredited test method
SP	Akustikmiljö i Falkenberg AB	PX26005	EN 13823 EN ISO 11925-2

#### 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 area weight range and thickness range of the product group and the amount of organic content range.

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN ISO 11925-2		12		
Edge /Surface flame attack				
30 s exposure	$F_s \leq 150$ mm		(-)	Compliant
Flaming droplets/particles	Ignition of filter paper		(-)	No ignition of filter paper
EN 13823		3		
	$FIGRA_{0,2MJ}$ (W/s)		41	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		41	Compliant
	$LFS < edge$		(-)	Compliant
	$THR_{600s}$ , (MJ)		2.0	Compliant
	$SMOGRA$ , ( $m^2/s^2$ )		6.4	Compliant
	$TSP_{600s}$ , ( $m^2$ )		44	Compliant
	Flaming droplets/particles		(-)	No flaming droplets

(-) : 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.

**4.2 Classification**

The product called “EcoSund®” 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>B</b>	-	s	1	,	d	0

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