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## Reaction to fire classification report

### 1 Introduction

This classification report defines the classification assigned to the product "Gustafs BF-panel" in accordance with the procedure given in EN 13501-1.

### 2 Details of classified product

#### 2.1 General

The product "Gustafs BF-panel" is defined as a wall and ceiling product.

#### 2.2 Product description

According to the client:

Plain, perforated (type PH/PG 5, 8, 10 mm, PD 8 mm, PS2 3/10 mm) and slotted (SH/SG 5, 8 mm, SM/SX 5, 8 mm, RS5-C20 mm and RS8-C40 mm) wall and ceiling panel product called "Gustafs BF-Panel", consisting of the following:

- Core** Gypsum wood fibre board having a nominal thickness of 8 - 12 mm. When perforated or slotted, a black glass tissue is mounted on the backside of the core.  
Alternative, Cellulose fibre reinforced gypsum board called "CGS", having a nominal thickness of 12,5 mm and a nominal density of 1150 kg/m<sup>3</sup>. When perforated or slotted, a black glass tissue is mounted on the backside of the core.
- Glue** MUF glue 1232 with hardener 2532, maximum 130 g/m<sup>2</sup>.
- Surface layer** Wooden veneer having a maximum thickness of 0.7 mm.  
Alternative craft paper type "Spantex". Weight 275 g/m<sup>2</sup>. Only in combination with paint base called "Wedett 40 TIX".
- Lacquer** 3 layers of UV-tempered clear varnish called "Uvinol". Maximum 50 g/m<sup>2</sup>.  
Alternative industrial Decorwax based on natural oils and waxes. Maximum 50 g/m<sup>2</sup>.  
Alternative 2-component acid cured paint base called "Wedett 40 TIX". Maximum 120 g/m<sup>2</sup>. Only applied to the craft paper called "Spantex".

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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	Test method / extended application rules & date
SP	Gustafs Inredning i Dalarna AB	P400642	EN 13823 and EN ISO 11925-2
SP	Gustafs Inredning i Dalarna AB	P701876	EN 13823 and EN ISO 11925-2
SP	Gustafs Inredning i Dalarna AB	P801600	EN 13823 and 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.

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance parameter
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)		29	(-)
	$LFS < \text{edge}$		(-)	Compliant
	$THR_{600s}$ , (MJ)		1.0	(-)
	$SMOGRA$ , ( $\text{m}^2/\text{s}^2$ )		0	(-)
	$TSP_{600s}$ , ( $\text{m}^2$ )		17	(-)
	Flaming droplets/particles		(-)	No flaming droplets/particles

\* : as required to the end use application of the product

(-) : 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 8, 11 and 15 of EN 13501-1:2007.

**4.2 Classification**

The product called "Gustafs BF-panel" 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 is:

Fire Behaviour		Smoke Production			Flaming Droplets	
<b>B</b>	-	<b>s</b>	<b>1</b>	,	<b>d</b>	<b>0</b>

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

**4.3 Field of application:**

This classification is valid for the following end use conditions:

Mounting

- Mechanically fixed by means of aluminium profiles to wood battens which are attached to the substrate according to SP report P400642, appendix 11.

Substrates

- Wood based substrates, having a density  $\geq 630 \text{ kg/m}^3$ .
- Any end use substrate of Euroclasses A1 or A2, having a density  $\geq 700 \text{ kg/m}^3$ .

Acoustic board

- Stone wool having a nominal density of  $28 \text{ kg/m}^3$  and a nominal thickness of 30 mm.

This classification is also valid for the following product parameters:

Surface structure

- Plain, perforated (type PH/PG 5, 8, 10 mm, PD 8 mm, PS2 3/10 mm) and slotted (SH/SG 5, 8 mm, SM/SX 5, 8 mm, RS5-C20 mm and RS8-C40 mm).

Core

- Gypsum wood fibre board having a nominal thickness of 8 - 12 mm.  
or
- Cellulose fibre reinforced gypsum board called "CGS", nominal thickness 8 - 12 mm.

Glue

- Melamine - urea glue, maximum 130 g/m<sup>2</sup>.

Surface layer

- Wooden veneer, nominal thickness 0.7 mm  
or
- Craft paper type "Spantex". Nominal area weight 275 g/m<sup>2</sup> (painted panels). Only in combination with paint base called "Wedett 40 TIX".

Lacquer

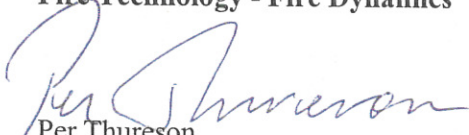
- 3 layers of UV-tempered clear varnish, maximum 50 g/m<sup>2</sup>  
or
- Industrial Decorwax based on natural oils and waxes.  
Maximum 50 g/m<sup>2</sup>  
or
- 2-component acid cured paint base called "Wedett 40 TIX".  
Maximum 120 g/m<sup>2</sup>. Only applied to the craft paper called "Spantex".

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.

**SP Technical Research Institute of Sweden**  
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