

Thore Berntssons Båtbyggeri AB  
Mellan-Restad 460  
SE-442 95 KUNGÄLV

## Reaction to fire classification report

### 1 Introduction

This classification report defines the classification assigned to the product “Moln” in accordance with the procedure given in EN 13501-1:2007+A1:2009.

This classification report replace SP classification report 4P05712, dated October 13, 2014.

### 2 Details of classified product

#### 2.1 General

The product “Moln” is defined as a sandwich panel. Its classification is valid for the end use application as a surface lining for indoor use.

#### 2.2 Product description

According to the client:

Composite panel called “Moln”, with a foam core and GRP surface layer on both sides. The panel has an intumescent paint coating on both sides. The product has a nominal thickness of 33 mm.

Material:	Amount:
Top clear coat	120 µm
FR-treated paint	Contego, High Solids, 600 µm
Glas fibre	3000 gram/m <sup>2</sup>
Hartz	
Core material P60	27 mm
Hartz	
Glas fibre	3000 gram/m <sup>2</sup>
FR-treated paint	Contego, High Solids, 600 µm
Top clear coat	120 µm

The panel has sealed edges and is manufactured with vacuum infusion technology.

More information regarding the product is held on file by SP Fire Research.

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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	Thore Berntssons Båtbyggeri AB	4P05712rev1	EN 13823 EN ISO 11925-2

#### 3.2 Test results

Test method	Parameter	Number of tests	Results	
			Continuous parameter mean (m)	Compliance with parameters
EN ISO 11925-2		6		
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)		93	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		52	Compliant
	$LFS < \text{edge}$		(-)	Compliant
	$THR_{600s}$ , (MJ)		1.5	Compliant
	$SMOGRA$ , ( $m^2/s^2$ )		2.6	Compliant
	$TSP_{600s}$ , ( $m^2$ )		34	Compliant
	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 11 and 15 of EN 13501-1:2007+A1:2009.

**4.2 Classification**

The product called “Moln” 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>	-	<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 product parameters:

Nominal dimensions : see product description.

Construction : see product description.

This classification is valid for the following end use conditions:

Orientation:

- The classification is valid from both sides.

Substrates

- Freestanding.

Joints

- Sealed joints between panels.

The sample was delivered by the client. SP Fire Research 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 Fire Research - Fire Dynamics

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