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## Reaction to fire classification report

### 1 Introduction

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

### 2 Details of classified product

#### 2.1 General

The product “Formica ColorCore” is defined as a compact laminate panel. Its classification is valid for linings.

According to the owner of this classification report, this product complies with the European product specification EN 438-7:2005.

#### 2.2 Product description

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

Product called “Formica ColorCore” consisting of a calcium silicate core (Promarine 600 calcium silicate) with BTS laminate glued on its both sides. The laminate is composed by paper and melamine resin.

The core has a nominal density of  $600 \text{ kg/m}^3$ , a nominal area weight of  $9 \text{ kg/m}^2$  and a nominal thickness of approximately 12 mm. The laminate has a nominal density of  $1450 \text{ kg/m}^3$ , a nominal area weight of  $1.9 \text{ kg/m}^2$  and a nominal thickness of approximately 1.3 mm. The laminates have been produced under high pressure (pressure  $> 50 \text{ kg/cm}^2$ ) and high temperature (temperature  $> 120^\circ\text{C}$ ).

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

#### 3.1 Test report

This classification is based on the test report listed below:

Name of laboratory	Name of sponsor	Test report ref no	Accredited test method
SP Fire Research	Formica Limited	4P04737	EN 13823 and 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		20		
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)		153	Compliant
	$FIGRA_{0,4MJ}$ (W/s)		137	Compliant
	$LFS < \text{edge}$		(-)	Compliant
	$THR_{600s}$ (MJ)		3.7	Compliant
	$SMOGRA$ , ( $m^2/s^2$ )		27	Compliant
	$TSP_{600s}$ ( $m^2$ )		136	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 “ Formica Colorcore” in relation to its reaction to fire behaviour is classified:

C

The additional classification in relation to smoke production is:

s2

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	
C	-	s	2	,	d	0

**Reaction to fire classification: C-s2,d0**

##### 4.3 Field of application:

This classification is valid for the following product parameters:

Nominal thickness of core: 12 mm approximately.

Nominal thickness of laminate: 1.3 mm approximately.

This classification is valid for the following end use conditions:

- Mechanically fixed with centre fixings distance up to 800 mm to wood based or all other types of frames (e.g. aluminium, steel frames).
- Vertical joints
- Mounting with a wood frame (or other type of frames e.g. aluminium, steel frames) to create a nominal cavity of 30 mm.
- For all greater thickness of the same type of panel.

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 Fire Research - Fire Dynamics

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