

## Classification report on fire behaviour according to DIN EN 13501-1:2010-01

**Classification report no.:**

K-2300/679/16-MPA BS

**Client:**

SISTEM METAL  
Yapi Reklam Malzemeleri Insaat San ve Tic. A.S  
Istiklal Mh. Atatürk Cad. 19 Mayıs Is Mrk. No.: 1  
34522 KIRAÇ - Esenyurt / ISTANBUL

**Prepared by:**

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**No. of the notified office:**

0761-CPD

**Product name:**

Aluminium composite panel;  
product designation: "ALBOND"

**Version no.:**

1st version

**Version date:**

18/08/2016

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## 1 Introduction

This classification report on fire behaviour specifies the classification assigned to the construction products listed below in compliance with the procedure stipulated in DIN EN 13501-1:2010-01.

## 2 Details of the classified construction product

### 2.1 General

The construction product is an aluminium composite panel for cladding on curtain walls.

### 2.2 Description of the construction product

The construction product is described in full in the test reports listed in Section 3.1 that form the basis of the classification.

## 3 Test reports and test results on which the classification is based

### 3.1 Test reports

Name of testing laboratory	Name of client	Number of test report	Test method(s)
MPA Braunschweig	SISTEM METAL Yapi Reklam Malzemeleri Insaat San ve Tic. A.S	2300/679/16-a of 18/08/2016	DIN EN 13823:2015-02
MPA Braunschweig	SISTEM METAL Yapi Reklam Malzemeleri Insaat San ve Tic. A.S	2300/679/16-b of 18/08/2016	DIN EN ISO 1716:2010-11

### 3.2 Test results

Test method(s)	Parameter(s)	Number of tests	Test results	
			Continuous parameters (mean value)	Discrete parameters
EN 13823	FIGRA <sub>0.2 MJ</sub> [W/s]	3	18	--
	FIGRA <sub>0.4 MJ</sub> [W/s]		15	--
	THR <sub>600s</sub> [MJ]		1.8	--
	LFS < edge		--	requirement fulfilled
	SMOGRA [m <sup>2</sup> /s <sup>2</sup> ]		0	--
	TSP <sub>600s</sub> [m <sup>2</sup> ]		18	--
	burning droplets / falling particles		--	No

Test method(s)	Parameter(s)	Number of tests	Test results	
			Continuous parameters (mean value)	Discrete parameters
EN ISO 1716	PCS outer n. subst. 1	3	1.80	--
	PCS n. subst. 1	3	1.13	--
	PCS n. subst. 2 [MJ/m <sup>2</sup> ]	3	3.42	--
	PCS subst. 1 [MJ/kg]	3	1.83	--
	PCS n. subst. 2 [MJ/m <sup>2</sup> ]	3	3.42	--
	PCS n. subst. 1	3	1.13	--
	PCS outer n. subst. 2 [MJ/m <sup>2</sup> ]	3	0.75	--
	PCS <sub>total</sub> [MJ/kg]	--	2.69	--

#### 4 Classification and field of application

##### 4.1 Reference for classification

The classification was conducted according to DIN EN 13501-1:2010-01, Section 11.7.

##### 4.2 Classification

The construction product is classified as follows with regard to its fire behaviour:

**A2**

The additional classification for smoke development is:

**s1**

The additional classification for burning droplets / falling particles is:

**d0**

The format for classifying the fire behaviour for construction products, excluding floor coverings and pipe insulation, is:

Fire behaviour		Smoke development			Burning droplets	
A2	-	s	1	--	d	0

**Classification of fire behaviour: A2-s1, d0**

### 4.3 Field of application

This classification is valid for the following end uses and parameters of the individual components:

#### 4.3.1 Scope of validity of the end use

Parameter(s)	Scope of validity of the classification
Area of use	Cladding on curtain walls
Distance	≥ 80 mm from building materials of fire behaviour class A2-s1,d0 or better with an apparent density ≥ 615 kg/m <sup>3</sup> according to the rule in DIN EN 13238:2010-12, sections 5.3.2.1 and 5.3.2.2

#### 4.3.2 Scope of validity of the individual components

Components	Parameter(s)	Scope of validity of the classification
Top coat (front side)	Type	PVDF
	Colour	Grey
	Application quantity	90 g/m <sup>2</sup> ± 5%
	Calorific value	≤ 4.0 MJ/m <sup>2</sup>
Primer	Type	PVDF
	Application quantity	60 g/m <sup>2</sup> ± 5%
	Calorific value	≤ 4.0 MJ/m <sup>2</sup>
Metal layer	Type	Aluminium
	Thickness	0.5 mm ± 5%
	Density	2500 kg/m <sup>3</sup> ± 10%
Adhesive layer	Type	Polyethylene
	Weight per unit area	75 g/m <sup>2</sup> ± 5%
	Calorific value	≤ 4.0 MJ/m <sup>2</sup>
Core material	Type	inorganic
	Thickness	3.0 mm ± 5%
	Density	1800 kg/m <sup>3</sup> ± 10%
	Calorific value	≤ 3.0 MJ/kg

Top coat (rear side)	Type Colour Application quantity Calorific value	PVDF grey 50 g/m <sup>2</sup> ± 5% ≤ 4.0 MJ/m <sup>2</sup>
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## 5 Please note

- 5.1 When combined with building materials, thicknesses or density ranges or at distances from other building materials other than those specified in Section 4.3, the fire behaviour may be impaired to the extent that the classification in Section 4.2 is no longer valid. The fire behaviour for parameters other than those stated above is to be verified separately.
- 5.2 This classification report is not a type approval or product certification and does not replace any technical certificates that may be necessary under German construction law (state building codes).
- 5.3 The manufacturer has not made any declaration as to the categorisation of its construction product in a system used to verify conformity for CE marking in the context of the construction products regulation.

This document is the translated version of classification report no. K-2300/679/16-MPA BS – dated 18/08/2016. The legally binding text is the aforementioned German classification report.

Signature



Tech.-Ang. D. Röhr  
Engineer/Official in Charge

Confirmed



ORR Dr.-Ing. G. Blume  
Head of Testing Laboratory

