



# Classification of reaction to fire performance

This Report shall classify the reaction to fire performance of the building product  
"Aluminium sandwich system Dibond FR" in accordance with the procedures  
given in EN 13501-1:2009

**Report No: 12100204-C**

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**Sponsor:** 3A Composites GmbH  
Alusingen-Platz 1  
D-78224 Singen

**Product name:** "aluminium sandwich system Dibond FR 2 mm – 4 mm"

**Notified Body No:** 1322

**Tested composite strength:** 2, 3 and 4 mm

**Brief assessment:** The following building product is assigned Euroclass B – s1, d0 in relation to its reaction to fire performance and in accordance with EN 13501-1:2009. The reaction to fire classification and the validated field of application shall be taken from this Classification Report.

**This Report contains:** 6 pages

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## 1.) Introduction:

This Classification Report defines the classification assigned to the building product "aluminium sandwich system Dibond FR" in compliance with the procedures set down in EN 13501-1:2009.

## 2.) Details of classified building product:

### 2.1) Nature and scope:

The building product "aluminium sandwich system Dibond FR" shall be defined as a "classified type of building product". The classification shall be valid for the field of application set down under point 5.

### 2.2) Description:

The building product "aluminium sandwich system Dibond FR" is described in more detail in the test reports listed in point 3.1 which underlie this classification.

## 3.) Test reports and results underlying this classification:

### 3.1) Test reports:

<b>Name of laboratory</b>	<b>Sponsor</b>	<b>Number of test reports</b>	<b>Test process</b>
IBS GmbH	Alcan Singen GmbH	08042503-1	OENORM EN 13823:2002
IBS GmbH	Alcan Singen GmbH	08042503-2	OENORM EN ISO 11925-2:2002
IBS GmbH	Alcan Singen GmbH	06033110-1	OENORM EN ISO 13823:2002
IBS GmbH	Alcan Singen GmbH	06033110-2	OENORM EN ISO 11925-2:2002

3.2) Test results:

Test process	Parameter	Number of tests	Test results	
			Steady parameters mean value (m)	Discrete parameter
<b>OENORM EN 13823</b> Dibond FR 2 mm	FIGRA <sub>0,2</sub> (W/s)	3 (test series)	41.48	(-)
	FIGRA <sub>0,4</sub> (W/s)		41.48	(-)
	THR <sub>600s</sub> (MJ)		3.93	(-)
	LFS < edge		(-)	J
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		2.90	(-)
	TSP <sub>600s</sub> (m <sup>2</sup> )		38.15	(-)
	Flaming droplets/particles		(-)	N
<b>OENORM EN 13823</b> Dibond FR 4 mm	FIGRA <sub>0,2</sub> (W/s)	3 (test series)	26.55	(-)
	FIGRA <sub>0,4</sub> (W/s)		26.55	(-)
	THR <sub>600s</sub> (MJ)		1.59	(-)
	LFS < edge		(-)	J
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		1.35	(-)
	TSP <sub>600s</sub> (m <sup>2</sup> )		26.95	(-)
	Flaming droplets/particles		(-)	N
<b>OENORM EN ISO 11925-2</b> Dibond FR 2 mm Surface flaming Edge flaming 30 s exposure Flaming droplets/particles	Fs ≤ 150 mm	12	(-)	J
	Ignition of filter paper		(-)	N
<b>OENORM EN ISO 11925-2</b> Dibond FR 4 mm Surface flaming Edge flaming 30 s exposure Flaming droplets/particles	Fs ≤ 150 mm	12	(-)	J
	Ignition of filter paper		(-)	N

Test process	Parameter	Number of tests	Test results	
			Steady parameters mean value (m)	Discrete parameter
<b>OENORM EN 13823</b> Dibond FR 3 mm	FIGRA <sub>0,2</sub> (W/s)	3 (test series)	9.82	(-)
	FIGRA <sub>0,4</sub> (W/s)		9.82	(-)
	THR <sub>600s</sub> (MJ)		1.2	(-)
	LFS < edge		(-)	J
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		2.2	(-)
	TSP <sub>600s</sub> (m <sup>2</sup> )		35.54	(-)
	Flaming droplets/particles		(-)	N
<b>OENORM EN ISO 11925-2</b> Dibond FR 3 mm Surface flaming Edge flaming 30 s exposure Flaming droplets/particles	Fs ≤ 150 mm	12	(-)	J
	Ignition of filter paper		(-)	N
(-) not applicable				

#### 4.) Classification and direct field of application:

##### 4.1) References and direct field of application:

This Classification was carried out in compliance with clauses 6, 7, 8 and 10.6 of OENORM EN 13501-1:2009.



4.2) Classification:

The building product "aluminium sandwich system Dibond FR" is classified in relation to its reaction to fire performance:

**B**

The additional classification in relation to smoke production is:

**s1**

The additional classification in relation to flaming droplets/particles is:

**d0**

The format of the reaction to fire classification for building products with the exception of flooring is:

Reaction to fire		Smoke development			No flaming droplets/particles	
<b>B</b>	-	<b>s</b>	<b>1</b>	,	<b>d</b>	<b>0</b>

i.e.: **B – s1, d0**

5.) **Field of application:**

This Classification shall be valid for the following end use conditions:

- Wall and ceiling installation - not horizontally in floors
- with cavity
- with rear ventilation
- In compliance with EN 13823 only substrates of at least Euroclass A1 or A2 may be used in practical application.

This Classification shall also be valid for the following product parameters:

- Composite strength: 2.3 x 4 mm
- Product assembly: as tested (see test report in 3.1)



## 6.) Validity:

Due to the amended European standards, the restriction of the validity of classification reports, which are based on a product standard, is abolished.

The period of validity shall generally expire prematurely if the sponsor undertakes improper technical modifications to the building product and exceeds or falls below the dimensions underlying this Classification Report (see test reports) unless these lie within the accepted tolerances (see test reports).

## 7.) Warning:

This document does not represent any type approval or certification of the product.

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