

## Test Report

No. AJHL1602001561FB

Date: MAR.18, 2016

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JIANGSU ALUWEDO IMPORT AND EXPORT CO., LTD

NO.3 ECONOMICAL DEVELOPMENT ZONE, ZHANGJIAGANG, JIANGSU, CHINA

The following sample(s) was / were submitted and identified on behalf of the client as:

**Sample Description:** ALUMINUM COMPOSITE PANEL

### **Test Requested:**

EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements—Part 1:  
Classification using data from reaction to fire tests, class B.

**Test Results:** -- See attached sheet --

### **Test Period:**

Sample Receiving Date : MAR.04, 2016

Test Performing Date : MAR.04, 2016 TO MAR.17, 2016

Signed for and on behalf of  
SGS-CSTC Co., Ltd. Anji Branch

Allen Zou  
Technical Manager



SGS-CSTC Standards Technical Service Co., Ltd.  
Anji Branch

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中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)

**I. Test conducted**

This test is conducted as per EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements — Part 1: Classification using data from reaction to fire tests. And the test methods as following:

1. EN 13823:2010 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.
2. EN ISO 11925-2:2010 Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 2: Single-flame source test.

**II. Details of classified product**

a) Nature and end use application

The product “Aluminum Composite Panel” is defined as building material. Its end use application: Building Material.

b) Description

The details of the product given above have been prepared from information provided by the sponsor of the test.

Name / Color	Aluminum Composite Panel / White
Thickness	5.2mm
Mass per unit area	8.15kg/m <sup>2</sup>

Mounting and fixing:

Fire cement board, with its density approximate 1800kg/m<sup>3</sup>, thickness 6mm. The test specimens are fixed mechanically to the substrate. No joint in the long wing.

**III. Test results**

Test method	Parameter	Number of tests	Results
EN 13823	FIGRA (W/s)	3	6.5
	LFS < edge of specimen		Yes
	THR <sub>600s</sub> (MJ)		0.7
	SMOGRA (m <sup>2</sup> /s <sup>2</sup> )		0
	TSP <sub>600s</sub> (m <sup>2</sup> )		2.2
	Flaming particles or droplets		No

To be continued...



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SGS-CT, Standards Technical Services Co., Ltd.  
Anji Branch

No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn  
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e sgs.china@sgs.com



**Annex A**

Classes of reaction to fire performance for construction products excluding floorings and linear pipe thermal insulation products

Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 <sup>a</sup> and	$\Delta T \leq 30^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f = 0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS \leq 2.0\text{MJ/kg}$ <sup>a</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>b,c</sup> and $PCS \leq 1.4\text{MJ/m}^2$ <sup>d</sup> and $PCS \leq 2.0\text{MJ/kg}$ <sup>e</sup>	-
A2	EN ISO 1182 <sup>a</sup> or	and $\Delta T \leq 50^\circ\text{C}$ , and $\Delta m \leq 50\%$ , and $t_f \leq 20\text{ s}$	-
	EN ISO 1716		-
	EN 13823	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
B	EN 13823 and	$FIGRA \leq 120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 7.5\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	within 60s $F_s \leq 150\text{mm}$	
C	EN 13823 and	$FIGRA \leq 250\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s} \leq 15\text{MJ}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
D	EN 13823 and	$FIGRA \leq 750\text{W/s}$	Smoke production <sup>f</sup> and Flaming droplets/particles <sup>g</sup>
	EN ISO 11925-2 <sup>i</sup> Exposure = 30s	$F_s \leq 150\text{mm}$ within 60 s	
E	EN ISO 11925-2 <sup>i</sup> Exposure = 15s	$F_s \leq 150\text{mm}$ within 20 s	flaming droplets/particles <sup>h</sup>

To be continued...



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SGS-CSI Standards Technical Services Co., Ltd.  
Anji Branch Plant and Goods Laboratory

No. 301, Sunlight Road, 2 Block, Sunlight Industry Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.sgsgroup.com.cn  
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e [sgs.china@sgs.com](mailto:sgs.china@sgs.com)



F	No performance determined
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<sup>a</sup> For homogeneous products and substantial components of non-homogeneous products.  
<sup>b</sup> For any external non-substantial component of non-homogeneous products.  
<sup>c</sup> Alternatively, any external non-substantial component having a PCS  $\leq 2,0 \text{ MJ/m}^2$ , provided that the product satisfies the following criteria of EN 13823: FIGRA  $\leq 20 \text{ W/s}$ , and LFS < edge of specimen, and THR<sub>600s</sub>  $\leq 4,0 \text{ MJ}$ , and s1, and d0.  
<sup>d</sup> For any internal non-substantial component of non-homogeneous products.  
<sup>e</sup> For the product as a whole.  
<sup>f</sup> In the last phase of the development of the test procedure, modifications of the smoke measurement system have been introduced, the effect of which needs further investigation. This may result in a modification of the limit values and/or parameters for the evaluation of the smoke production.

s1 = SMOGRA  $\leq 30\text{m}^2/\text{s}^2$  and TSP<sub>600s</sub>  $\leq 50\text{m}^2$ ; s2 = SMOGRA  $\leq 180\text{m}^2/\text{s}^2$  and TSP<sub>600s</sub>  $\leq 200\text{m}^2$ ; s3 = not s1 or s2  
<sup>g</sup> d0 = No flaming droplets/ particles in EN 13823 within 600 s;  
d1 = no flaming droplets/ particles persisting longer than 10 s in EN 13823 within 600 s;  
d2 = not d0 or d1.  
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.  
<sup>h</sup> Pass = no ignition of the paper (no classification);  
Fail = ignition of the paper (d2 classification).  
<sup>i</sup> Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.

To be continued...



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Photo Appendix:



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\*\*\*End of Report\*\*\*



SGS-CTI Standards Technical Services Co., Ltd.  
Anji Branch Hangzhou Standards and Quality Laboratory

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