

**Test Report**

Report Number:140312001SHJ-BP-2

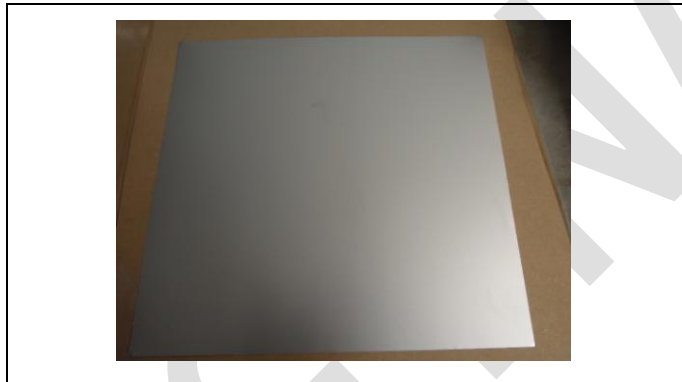
**Applicant Name:** Jiangyin Tianhong Decoration Material Co., Ltd.      **Original Report Date:** April 25, 2014  
**Applicant Address:** 18# Huanxi Road, Huashi Industrial Zone, Jiangyin city, Jiangsu, China  
**Attn:** Evin Feng

**Sample Description:**

Product: Aluminium composite panel  
Model: 4 mm  
Samples Quantity: 1.5x 1.0(m) 5PCS; 1.5x 0.5(m) 5PCS;  
0.5x 0.5(m) 5PCS

Brand: ALUCOSUN® A2  
Sample ID: S140312001SHJ-001  
Date Received: April 14, 2014  
Date Test Conducted: April 14, 2014~Apr 25, 2014

Sample Photos (Received):




**Tests Conducted:**

Test Methods: EN 13823:2010, EN ISO 1716:2010, EN 13501-1:2007+A1:2009

**Conclusion:**

For details refer to attached page(s).  
The conclusions of this test report may not be used as part of the requirements for Intertek product certification.  
Authority to Mark must be issued for a product to become certified.

Should you have any queries about the test report, please contact:

Approved by:	Checked by:	Prepared by:
		
Sun Sun Supervisor	Harrison Li Senior Project Engineer	Henry Huang Engineer

**Test Items, Method and Results:****1.1 HEAT OF COMBUSTION TEST**

The test was conducted in accordance with EN ISO 1716. In this test, the test specimen of specified mass is burned under standardized conditions, at constant volume, in an atmosphere of oxygen, in a bomb calorimeter. The heat of combustion determined under the specified conditions is calculated on the basis of the observed temperature rise, taking account of heat loss and the latent heat of vaporization of water.

**1.2 SINGLE BURNING ITEM TEST**

The test was conducted in accordance with EN 13823. This test evaluates the potential contribution of a product to the development of a fire, under a fire situation simulating a single burning item near to the product.

**1.3 CLASSIFICATION CRITERIA**

The classification was determined in accordance with EN 13501-1: 2007+A1: 2009. The classes A2 with their corresponding fire performance are given in the table below.

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

Class	Test Method(s)	Classification criteria	Additional classifications
A2	EN ISO 1716 and	PCS $\leq$ 3,0 MJ/Kg <sup>a</sup> and PCS $\leq$ 4,0 MJ/m <sup>2</sup> <sup>b</sup> PCS $\leq$ 4,0 MJ/m <sup>2</sup> <sup>c</sup> and PCS $\leq$ 3,0 MJ/Kg <sup>d</sup>	-
	EN 13823	FIGRA $\leq$ 120 W/s and LFS < edge of specimen and THR <sub>600s</sub> $\leq$ 7,5 MJ	Smoke production <sup>e</sup> and Flaming droplets/particles <sup>f</sup>

**Note:**

- For homogeneous products and substantial components of non-homogeneous products.
- For any external non-substantial component of non-homogeneous products.
- For any internal non-substantial component of non-homogeneous products.
- For the product as a whole.
- 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  $\leq$  30m<sup>2</sup>/s<sup>2</sup> and TSP<sub>600s</sub>  $\leq$  50m<sup>2</sup>; s2 = SMOGRA  $\leq$  180m<sup>2</sup>/s<sup>2</sup> and TSP<sub>600s</sub>  $\leq$  200m<sup>2</sup>; s3 = not s1 or s2

f. 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 600s;  
 d2 = not d0 or d1.  
 Ignition of the paper in EN ISO 11925-2 results in a d2 classification.

**2 RESULTS AND OBSERATIONS**

The test results were shown in Table below.

Method	Parameter		Result
EN ISO 1716	PCS	Facing, MJ/m <sup>2</sup>	0.5
		Aluminium Substrate, MJ/kg	0.0
		Adhesive, MJ/m <sup>2</sup>	2.2
		Core, MJ/kg	2.6
		Aluminium Substrate, MJ/kg	0.0
		The whole product, MJ/kg	2.0
EN 13823	FIGRA, W/s		0
	THR <sub>600s</sub> , MJ		0.4
	LFS, m		< Edge of Specimen
	SMOGRA, m <sup>2</sup> /s <sup>2</sup>		0
	TSP <sub>600s</sub> , m <sup>2</sup>		39
	Flaming Droplets/ Particles		No flaming droplets/ particles occur within 600s

Note:

1. This test was conducted at the external approved facility, located at Guangzhou.
2. The samples were fixed mechanically to a 9mm thick substrate of calcium silicate board. The density of the substrate was 900 kg/m<sup>3</sup>.

**3 CLASSIFICATION**

The classification has been carried out in accordance with EN 13501-1.

Fire behaviour		Smoke production			Flaming Droplets	
<b>A2</b>	<b>-</b>	<b>s</b>	<b>1</b>	<b>-</b>	<b>d</b>	<b>0</b>

Reaction to fire classification: *A2-s1, d0*

**Appendix:**



Fig. 1 Before SBI Test



Fig. 2 Before SBI Test



Fig. 3 After SBI Test



Fig. 4 After SBI Test

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The End of Report

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