

## Test Report

Report Number: 160413004SHF-BP-1

**Applicant Name:** FOSHAN VANCO BUILDING MATERIALS CO.,LIMITED

**Report Date:** April 18, 2016

**Applicant Address:** Shunde Technology & Innovation Center, South Chaogui Rd., Gaoli, Ronggui, Foshan, China

**Attn:** OLIVIA

### Sample Description:

Product: Aluminium composite panel

Model: /

Sample Quantity: 1.5x 1.0(m) 5PCS; 1.5x 0.5(m) 5PCS; 0.5x 0.5(m) 5PCS

Sample ID: S140311005.001

Date Received: March 24, 2014

Date Test Conducted: Mar 24, 2014~Apr 14, 2014

### Tests Conducted:

As requested by the applicant, for details refer to attached pages(s).

### 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.

### 1.1 HEAT OF COMBUSTION TEST

The test was conducted in accordance with EN ISO 1716: 2010. This test evaluates the gross heat of combustion (QPCS) of products at constant volume in a bomb calorimeter.

### 1.2 SINGLE BURNING ITEM TEST

The test was conducted in accordance with EN 13823: 2010. 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 class A2 with its corresponding fire performance are given in the table below.

Table- Class 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> and 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

a. For homogeneous products and substantial components of non-homogeneous products.

b. For any external non-substantial component of non-homogeneous products.

c. For any internal non-substantial component of non-homogeneous products.

d. For the product as a whole.

e. 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.

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.

## 2 RESULTS AND OBSERATIONS

The test results were shown in Table below.

Method	Parameter		Result
EN ISO 1716: 2010	PCS	Facing, MJ/m <sup>2</sup>	1.3
		Aluminium Substrate, MJ/kg	0.0
		Adhesive, MJ/m <sup>2</sup>	2.1
		Core, MJ/kg	2.6
		Aluminium Substrate, MJ/kg	0.0
		The whole product, MJ/kg	2.1
EN 13823: 2010	FIGRA , W/s		0
	THR <sub>600s</sub> , MJ		0.3
	LFS, m		<Edge of Specimen
	SMOGR <sub>A</sub> , m <sup>2</sup> /s <sup>2</sup>		0
	TSP <sub>600s</sub> , m <sup>2</sup>		35
	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. Per EN 13823, the samples were free standing at a distance of 80mm from a 9 mm thick calcium silicate board. The density of the calcium silicate board 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	
A2	-	s	1	-	d	0

Reaction to fire classification: A2 - s1, d0

**4 TEST PHOTOS**



Fig. 1 Before SBI Test



Fig. 2 Before SBI Test



Fig. 3 After SBI Test

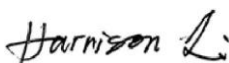


Fig. 4 After SBI Test

**Appendix A: Sample received photo****Approved by:**

Name: Sun Sun

Title: Approver



Name: Harrison Li

Title: Reviewer



Name: Timothy Li

Title: Project Engineer

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The End of Report

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