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SKY RAINBOW INDUSTRY LTD

TEST REPORT

REPORT NUMBER
180528008SHF-BP-1

ISSUE DATE
2018/6/7

PAGES
6

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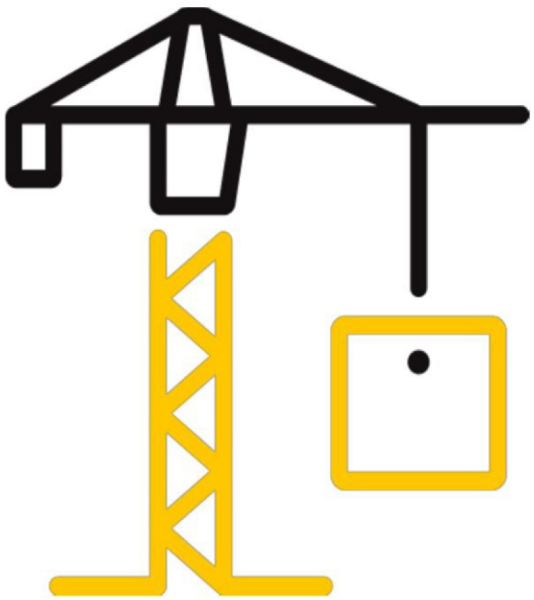

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Applicant: SKYRAINBOW INDUSTRY LTD

Applicant Address: 18 HUANXI ROAD, HUASHI, JIANGYIN, JIANGSU, CHINA

Attn: Linda Yuan
Manufacturer: SKYRAINBOW INDUSTRY LTD
Manufacturer Address: 18 HUANXI ROAD, HUASHI, JIANGYIN, JIANGSU, CHINA
Attn: Linda Yuan

SUBJECT: Performance testing
Aluminum composite panel with fireproof core

Dear Sir,
This test report represents the results of our evaluation of the above referenced product(s) to the requirements contained in the following standards:

TEST METHODS AND STANDARDS
Refer to the next following Pages.

SAMPLE ID	MODEL	SPECIFICATION
S180528008SHF.001~002	CLASS B	Panel Thickness: 4mm (SKY RAINBOW®)

SAMPLE RECEIEVED: 2018/5/28
TESTED FROM: 2018/5/28 TO 2018/6/7

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Test Items, Method and Results:

Test method: EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements - Part 1: Classification using data from reaction to fire tests

1.1 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.

1.2 IGNITABILITY TEST

The test was conducted in accordance with EN ISO 11925-2. This test evaluates the ignitability of a product under exposure to a small flame.

1.3 CLASSIFICATION CRITERIA

The classification was determined in accordance with EN 13501-1:2007+A1:2009. The class B with its 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
B	EN 13823 and	FIGRA ≤ 120 W/s and LFS < edge of specimen and THR_{600s} ≤ 7.5 MJ	Smoke production[a] and Flaming droplets/particles[b]
	EN ISO 11925-2 [c] Exposure = 30 s	FS ≤ 150 mm within 60 s	

Note:

a. 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 ≤ 30m^2/s^2 and TSP_{600s} ≤ 50m^2; s2 = SMOGRA ≤ 180m^2/s^2 and TSP_{600s} ≤ 200m^2; s3 = not s1 or s2
b. d0 = no flaming droplets/particles in EN 13823 within 600s;
d1 = no flaming droplets/particles persisting longer than 10s in EN 13823 within 600s;
d2 = not d0 or d1.
Ignition of the paper in EN ISO 11925-2 results in a d2 classification.
c. Under conditions of surface flame attack and, if appropriate to the end use application of the product, edge flame attack.

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Test Items, Method and Results:

2 RESULTS AND OBSERATIONS

Method	Parameter	Result
EN 13823:2010+A1:2014*	$FIGRA_{0.2MJ}$, W/s	9
	THR_{600s} , MJ	0.9
	LFS, m	<Edge of Specimen
	SMOGRA, m^2/s^2	0
	TSP_{600s}, m^2	23
	Flaming Droplets/Particles	No flaming droplets/particles occur within 600s
EN ISO 11925-2:2010 Exposure = 30 s	$F_S \leq 150$ mm within 60 s	Yes
	Ignition of the paper	No

Note

1. Test item marked with * was conducted at the external approved facility, located at Guangzhou.
2. Per EN 13823, the samples were fixed mechanically to the backing board. Backing board was a 12mm thick calcium silicate board. The density of the calcium silicate board was 900kg/m^3.

3 CLASSIFICATION

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

Fire behaviour		Smoke production			Flaming Droplets	
B	-	s	*1*	-	d	*0*

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

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4 Test Photos of EN 13823

Before test (Long wing)

Before test (Short wing)

After test (Long wing)

After test (Short wing)

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APPENDIX: SAMPLE RECEIVED PHOTO

REPORT AUTHORIZED

When signed with physical or electronic signature, the contents of this report have been prepared and approved per Intertek's quality process in accordance with ISO 17025.

Sally Xie Tod Qian

Name: Sally Xie Name: Tod Qian

Title: Reviewer Title: Project Engineer

Revision:

NO.	DATE	CHANGES	AUTHOR	REVIEWER
180528008SHF-BP-1	2018/6/7	First issue	Tod Qian	Sally Xie