

测试报告

编号 : GZCCM130700476

日期 : 2013.07.15

页码 : 1 of 2

常州双欧板业有限公司

中国江苏省常州市武进区横林横崔路8号

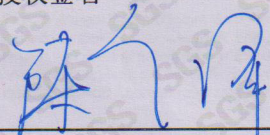
下列样品由客户提供及确认:

样品名称 : 铝复合板
测试要求 : 根据客户要求选择测试
收样日期 : 2013年07月09日
测试周期 : 2013年07月09日至2013年07月10日

测试结果 : 请见下页

*****待续*****

通标标准技术服务有限公司
广州分公司
授权签名


陈广泽 技术主管

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常州双欧板业有限公司
中国江苏省常州市武进区横林横崔路8号

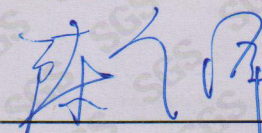
下列样品由客户提供及确认:

样品名称 : A2 级防火镁铝复合板
型号 : XMA2FR-50450
商标 : Shuang ou
SGS 参考报告 : AJD201303434
测试要求 : 根据客户要求选择测试
收样日期 : 2013 年 05 月 20 日
测试周期 : 2013 年 05 月 30 日至 2013 年 06 月 25 日

测试结果 : 请见下页。

*****待续*****

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测试信息:

样品描述: 铝复合板

I. 测试方法

本测试按照 EN 13501-1:2007+A1:2009 建筑制品和构件的火灾分级 第 1 部分: 用对火反应试验数据的分级进行, 测试方法如下:

1. EN ISO 1716:2010 建筑制品燃烧试验-燃烧热值的测定
2. EN 13823:2010 建筑制品燃烧试验-建筑材料(除地面材料外)的单体燃烧试验

II. 样品信息

a) 性质和最终用途

产品“铝复合板”定义为装饰性片材。它的最终用途: “板材用于外部和内部装饰”。

b) 描述

颜色	银色
厚度	约4.2mm
单位面积重量	约7.9kg/m ²

安装和固定:

密度约为900kg/m³, 厚度为9mm的硅酸钙板作为基材。测试试样用机械方法固定在基材上, 背后无空隙。试样长度方向上无接合。

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III. 测试结果

测试方法	参数	样品数量	结果
EN ISO 1716	PCS= 3.0MJ/kg ^a	3	1.16
	PCS= 4.0MJ/m ² ^b		0
	PCS= 4.0 MJ/m ² ^d		---
	PCS= 3.0MJ/kg ^e		---
EN 13823	FIGRA (W/s)	3	6.3
	LFS <试样边缘		是
	THR _{600s} (MJ)		0.83
	SMOGRA (m ² /s ²)		0
	TSP _{600s} (m ²)		9.4
	燃烧滴落物 / 微粒		否

备注:

PCS - 总热值[MJ/kg or MJ/m²] FIGRA -- 用于分级的燃烧增长率指数 [W/s]
 LFS - 火焰横向蔓延长度[m] THR_{600s} -- 时间为 600 秒时的总放热量[MJ]
 SMOGRA -- 烟气生成速率[m²/s²] TSP_{600s} -- 时间为 600 秒时的总烟气产生量[m²]

IV. 分级

分级要求按照EN 13501-1:2007+A1:2009

a) 分级

产品, “铝复合板” 级别如下,

燃烧等级		烟生成等级			燃烧熔滴等级	
A2	—	s	1	,	d	0

对火反应等级: A2-s1, d0

备注: 评级和相应的防火性能参考下面附录 A.

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Attention: To check the authenticity of testing/inspection report & certificate, please contact us at telephone: (86-755)83071443, or email: CN.Doccheck@sgs.com

等级	试验标准	分级判据	附加分级
A1	EN ISO 1182 ^a 且	$\Delta T=30^{\circ}\text{C}$, 且 $\Delta m=50\%$, 且 $t_f=0$ (无持续燃烧)	-
	EN ISO 1716	$PCS=2.0\text{MJ/kg}$ ^a 且 $PCS=2.0\text{MJ/kg}$ ^{bc} 且 $PCS=1.4\text{MJ/m}^2$ ^d 且 $PCS=2.0\text{MJ/kg}$ ^e	-
A2	EN ISO 1182 ^a 或	$\Delta T=50^{\circ}\text{C}$, 且 $\Delta m=50\%$, 且 $t_f=20\text{ s}$	-
	EN ISO 1716	且 $PCS=3.0\text{MJ/kg}$ ^a 且 $PCS=4.0\text{MJ/m}^2$ ^b 且 $PCS=4.0\text{MJ/m}^2$ ^d 且 $PCS=3.0\text{MJ/kg}$ ^e	-
	EN 13823	$FIGRA=120\text{W/s}$ 且 $LFS <$ 试样边缘 且 $THR_{600s}=7.5\text{MJ}$	产烟量 ^f 且 燃烧滴落物/ 微粒 ^g
B	EN 13823 且	$FIGRA=120\text{W/s}$ 且 $LFS <$ 试样边缘 且 $THR_{600s}=7.5\text{MJ}$	产烟量 ^f 且 燃烧滴落物/ 微粒 ^g
	EN ISO 11925-2 ⁱ 点火时间 =30s	60 s 内 $F_s=150\text{mm}$	
C	EN 13823 且	$FIGRA=250\text{W/s}$ 且 $LFS <$ 试样边缘 且 $THR_{600s}=15\text{MJ}$	产烟量 ^f 且 燃烧滴落物/ 微粒 ^g
	EN ISO 11925-2 ⁱ 点火时间 =30s	60 s 内 $F_s=150\text{mm}$	

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等级	试验标准	分级判据	附加分级
D	EN 13823 且	FIGRA=750W/s	产烟量 ^f 且 燃烧滴落物/微粒 ^g
	EN ISO 11925-2 ⁱ 点火时间=30s	60s 内 Fs=150mm	
E	EN ISO 11925-2 ⁱ 点火时间=15s	20 秒内 Fs=150mm	燃烧滴落物/微粒 ^h
F	无性能要求		

- a: 匀质制品和非匀质制品的主要组份;
 b: 非匀质制品的外部次要组份;
 c: 另一个可选择的判据是: 对 $PCS=2.0MJ/m^2$ 的外部次要组份, 提供样品符合 EN 13823 下列条件:
 $FIGRA=20W/s$ 、 $LFS <$ 试样边缘、 $THR_{600s}=4.0MJ$ 、s1 和 d0;
 d: 非匀质制品的任一内部次要组份;
 e: 整体制品;
 f: 在试验程序的最后阶段, 需对烟气测量系统进行调整, 烟气测量系统的影响需进一步研究。由此导致评价产烟量的参数或极限值的调整。
 $s1=SMOGRA=30m^2/s^2$ 且 $TSP_{600s}=50m^2$; $s2=SMOGRA=180m^2/s^2$ 且 $TSP_{600s}=200m^2$; s3=未达到 s1 或 s2;
 g: d0=按 EN 13823 规定, 600s 内无燃烧滴落物/微粒;
 d1=按 EN 13823 规定, 600s 内燃烧滴落物/微粒持续时间不超过 10s;
 d2=未达到 d0 或 d1;
 按照 EN ISO 11925-2 规定, 过滤纸被引燃, 则该制品为 d2 级;
 h: 通过=过滤纸未被引燃;
 未通过=过滤纸被引燃 (d2 级);
 i: 火焰轰击制品的表面和 (如果适合该制品的最终应用) 边缘。

备注: 1. 以上测试项目是由 SGS 集团内部的实验室执行的。

2. 此测试报告是报告编号 GZCCM130500316 的中文译本, 中英文版本如有歧义, 概以英文版为准。

*****待续*****

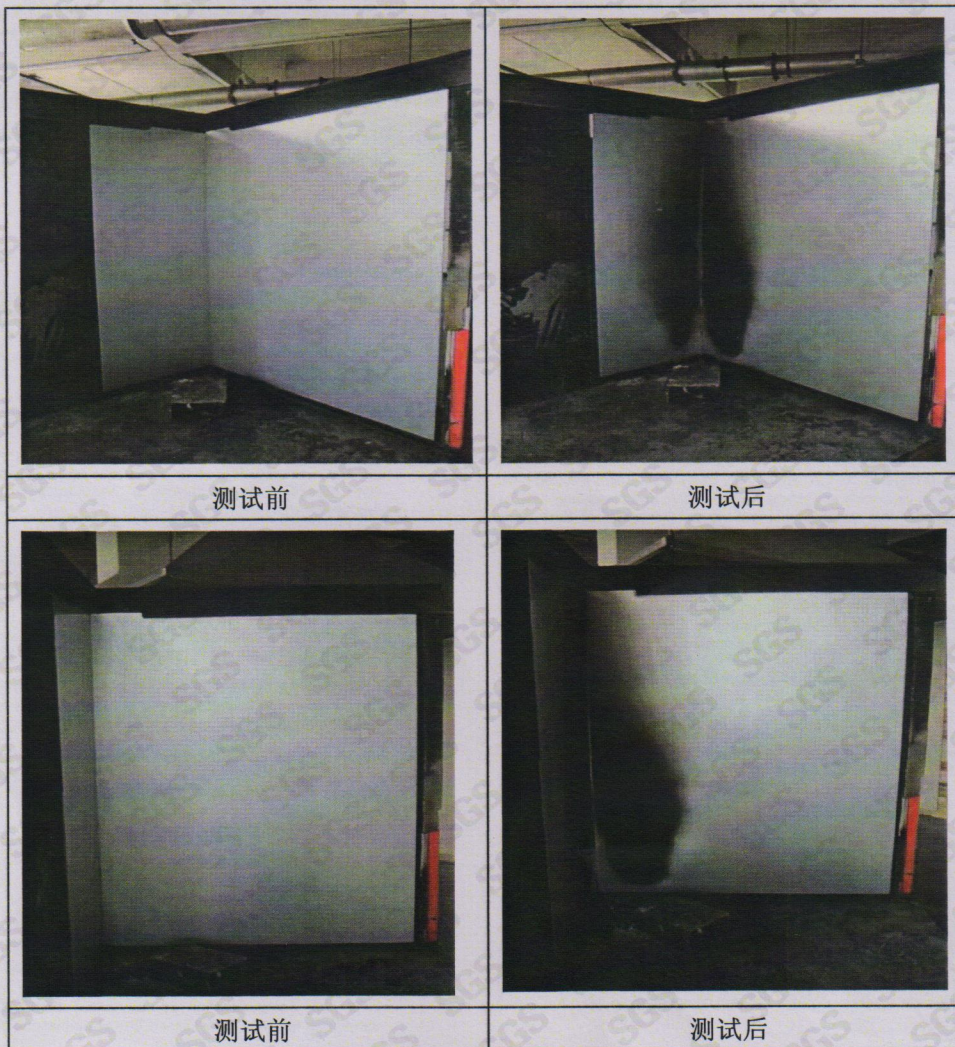
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图片:



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测试报告

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日期 : 2013.07.15

页码 : 2 of 2

测试信息:

样品描述: 见照片

实验室环境条件: 23±2°C, 50±10%RH

序号	测试项目	测试方法	测试条件	测试结果	GB/T 17748-1999 表 3 外墙板要求	结论
1	180°剥离强度	GB/T 17748-1999 第 6.17 节及 GB/T 2790-1995	试样: 350×25.86×4.22mm 试验速度: 100mm/min	7.42N/mm	=7.0 N/mm	符合

备注: 所有测试试样均从样品中截取。

照片:



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GZCCM0001338

TEST REPORT

No. : GZCCM130500316

Date : Jun.27, 2013

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CHANGZHOU SHUANGOU FLOORING CO.,LTD.

8# HENGCUI ROAD,ECONOMIC DEVELOPMENT DISTRICT,CHANGZHOU CITY,JIANGSU PROVINCE,
P.R. OF CHINA

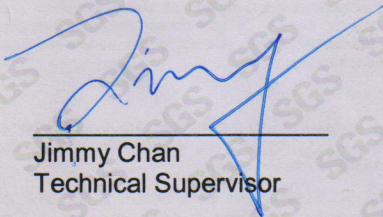
The following sample(s) was/ were submitted and identified on behalf of the client as:

Sample Name : A2 Grade Fire-Resistance Aluminum Composite Panel
Type No. : XMA2FR-50450
Trade Mark : Shuang ou
SGS Ref. No. : AJD201303434
Test required : Selected test(s) as requested by applicant
Date of Receipt : May.20, 2013
Test Period : May.30, 2013 to Jun.25, 2013

Test result(s) : For further details, please refer to the following page(s).

***** To be continued*****

Signed for and on behalf of
SGS-CSTC Standards Technical Services Co.,Ltd
Guangzhou Branch



Jimmy Chan
Technical Supervisor

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Test information:

Sample description: Aluminum plastic panel

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 ISO 1716-2010, Reaction to fire tests for building products — Determination of the heat of combustion.
2. EN 13823:2010 Reaction to fire tests for building products - Building products excluding floorings exposed to the thermal attack by a single burning item.

II. Details of classified product

a) Nature and end use application

The product "ALUMINUM PLASTIC PANEL" is defined as a decorative sheet. Its end use application: "This panel is applicative for exterior and interior decorative".

b) Description

Color	Silver
Thickness	About 4.2mm
Mass per unit area	About 7.9kg/m ²

Mounting and fixing:

Calcium silicate board, with its density approximate 900kg/m³, thickness 9mm, is as the substrate.

The test specimens are fixed mechanically to the substrate with no cavity behind it. No joint in the long wing of the specimen.

***** To be continued*****

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This classification for the submitted sample as described in §II b, is valid for the following end use condition:

- With all substrates classified A1 and A2
- With mechanically fixing
- No joint
- No an air gap

This classification is valid for the following product parameters:

- Characteristics are described in § II b of this test report.

STATEMENT: The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use.

WARNING:

This classification report does not represent type approval or certification of the product.

The test laboratory has, therefore, play no part in sampling the product for the test, although it holds appropriate references to the manufacturer's factory production control that is aimed to be relevant to the samples tested and that will provide for their traceability.

Annex A

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

***** To be continued*****

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GZCCM 0000901

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Class	Test method(s)	Classification criteria	Additional classification
A1	EN ISO 1182 ^a and	$\Delta T=30^{\circ}\text{C}$, and $\Delta m=50\%$, and $t_f=0$ (i.e. no sustained flaming)	-
	EN ISO 1716	$PCS=2.0\text{MJ/kg}$ ^a and $PCS=2.0\text{MJ/kg}$ ^{b,c} and $PCS=1.4\text{MJ/m}^2$ ^d and $PCS=2.0\text{MJ/kg}$ ^e	-
A2	EN ISO 1182 ^a or	and $\Delta T=50^{\circ}\text{C}$, and $\Delta m=50\%$, and $t_f=20\text{ s}$	-
	EN ISO 1716		
	EN 13823	$FIGRA=120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s}=7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
B	EN 13823 and	$FIGRA=120\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s}=7.5\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ¹ Exposure =30s	$F_s=150\text{mm}$ within 60 s	
C	EN 13823 and	$FIGRA=250\text{W/s}$ and $LFS < \text{edge of specimen}$ and $THR_{600s}=15\text{MJ}$	Smoke production ^f and Flaming droplets/particles ^g
	EN ISO 11925-2 ¹ Exposure=30s	$F_s=150\text{mm}$ within 60 s	

***** To be continued*****

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Class	Test method(s)	Classification criteria	Additional classification
D	EN 13823 and	FIGRA=750W/s	Smoke production ^f and
	EN ISO 11925-2 ¹ Exposure=30s	F _s =150mm within 60 s	Flaming droplets/particles ^g
E	EN ISO 11925-2 ¹ Exposure =15s	F _s =150mm within 20 s	flaming droplets/particles ^h
F	No performance determined		

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

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

^c Alternatively, any external non-substantial component having a PCS = 2,0 MJ/m², provided that the product satisfies the following criteria of EN 13823: FIGRA = 20 W/s, and LFS < edge of specimen, and THR_{600s} = 4,0 MJ, and s1, and d0.

^d For any internal non-substantial component of non-homogeneous products.

^e For the product as a whole.

^f 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 = 30m²/s² and TSP_{600s} = 50m²; s2 = SMOGRA = 180m²/s² and TSP_{600s} = 200m²; s3 = not s1 or s2

^g 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.

^h Pass = no ignition of the paper (no classification);

Fail = ignition of the paper (d2 classification).

ⁱ Under conditions of surface flame attack and, if appropriate to the end-use application of the product, edge flame attack.

Note: The test above was carried out by a SGS internal laboratory.

***** To be continued *****

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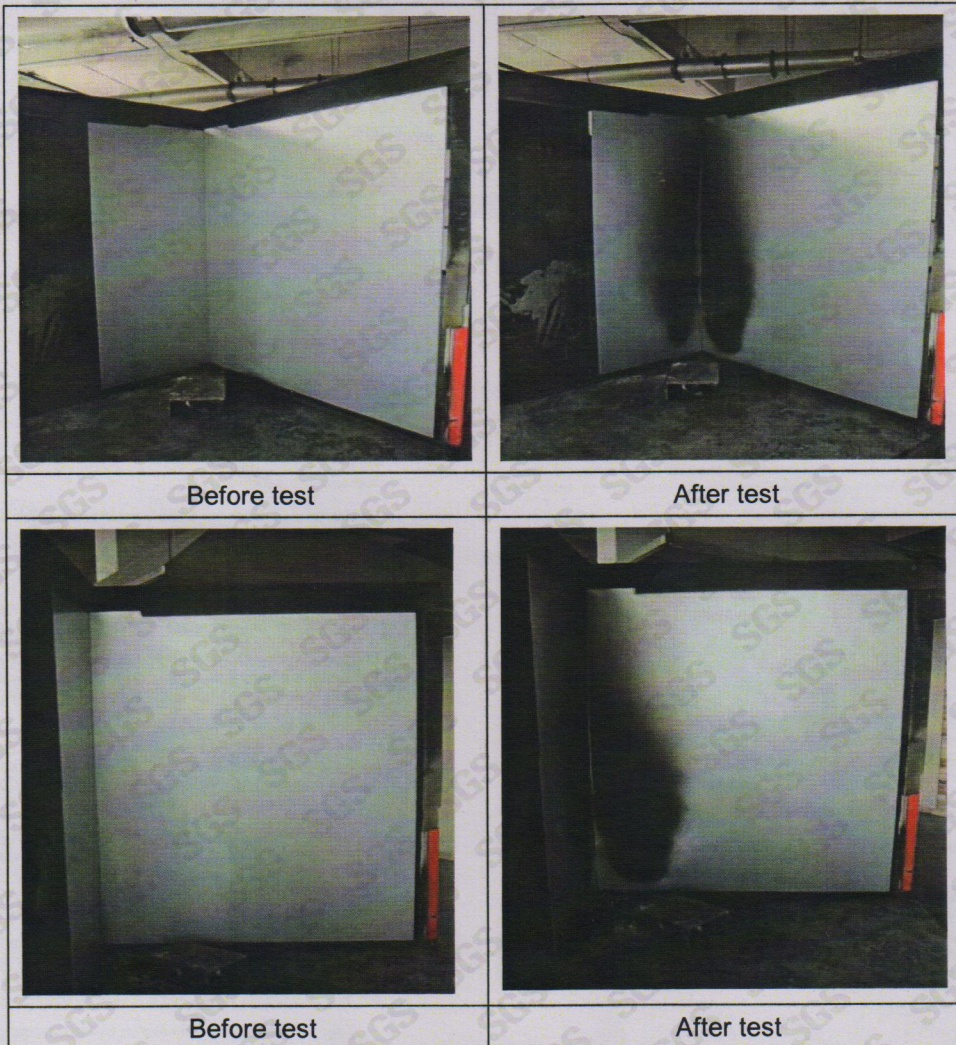
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*****End of report*****

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