

## TEST REPORT

No. : XMIN1507004393PS

Date : Jul 30, 2015

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CUSTOMER NAME: TAI ZHOU KINGERTAI DECORATION MATERIAL CO., LTD  
ADDRESS: WESTERN DAIWANG ROAD, CHENGDONG INDUSTRIAL PARK  
ZONE, TAIXING CITY, JIANGSU PROVINCE, CHINA

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

Sample Name : ALUMINIUM COMPOSITE PANEL  
SGS Ref. No. : GZIN1507031227MR  
Product Specification : 4mm/50s  
Manufacturer : Tai Zhou Kingertai Decoration Material Co., Ltd  
Material and Mark : Al, PE  
Date of Receipt : Jul 22, 2015  
Testing Start Date : Jul 22, 2015  
Testing End Date : Jul 30, 2015  
Test result(s) : For further details, please refer to the following page(s)

Signed for  
SGS-CSTC Standards Technical  
Services Co., Ltd Xiamen Branch  
Testing Center



Joy Zhang  
Authorized signatory

Note: Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



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Xiamen Branch Laboratory

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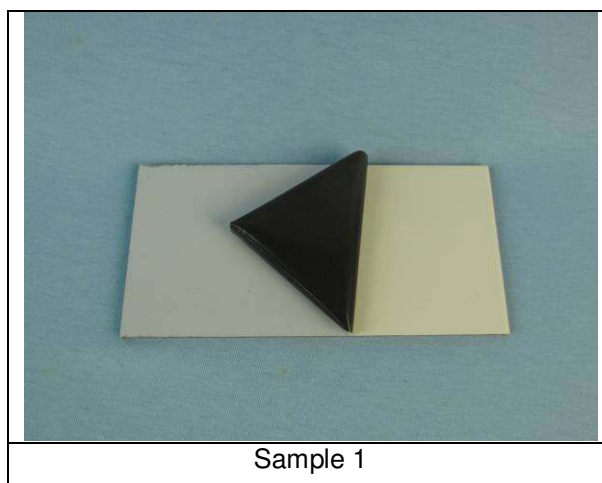
Date : Jul 30, 2015

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### Summary of Results:

No.	Test Item	Test Method	Result
1	Chemical Resistance	ASTM D1308-02(2013) Section 7.3	No visible change
2	Pencil Hardness	ASTM D3363-05(2011) <sup>62</sup>	H
3	Flexibility of Coating	ASTM D4145-10 Section 6.1	0T
4	Falling Sand Abrasion	ASTM D968-05(2010) Method A	80.3L/mil
5	Dry Adhesion	With reference to AAMA 2605-05 Section 7.4.1.1 and client's requirement	No removal of film or loss of adhesion
6	Boiling Water Adhesion	With reference to AAMA 2605-05 Section 7.4.1.3, 7.4.1.1 and client's requirement	No removal of film, blistering or loss of adhesion
7	Impact Resistance	With reference to AAMA 2605-05 Section 7.5 and client's requirement	No removal of film
8	Muriatic Acid Resistance	With reference to AAMA 2605-05 Section 7.7.1 and client's requirement	No blistering or other visual change

### Original Sample Photo:



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1. Test Item: Chemical Resistance

Sample Description: Metal panel with coating

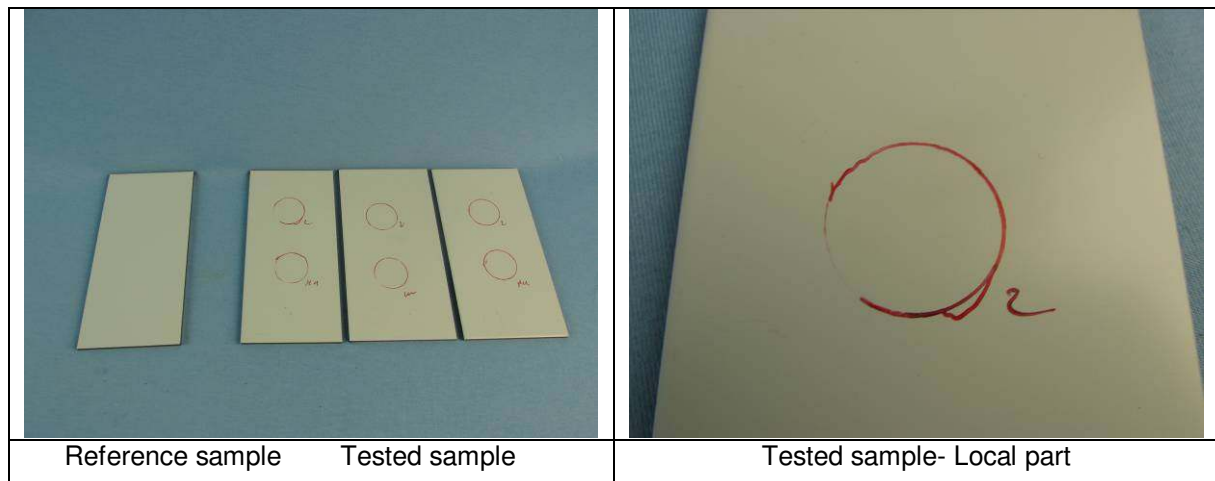
Test Method: ASTM D1308-02(2013) Section 7.3

Test Condition: 3% acetic acid(AR), Spot test, 1h

Test Result:

Sample	Appearance
1	No visible change

Test Photo:



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2. Test Item: Pencil Hardness

Sample Description: Metal panel with coating

Test Method: ASTM D3363-05(2011)<sup>ε2</sup>

Test Condition:

Test Pencil: Mitsubishi®

Test Result:

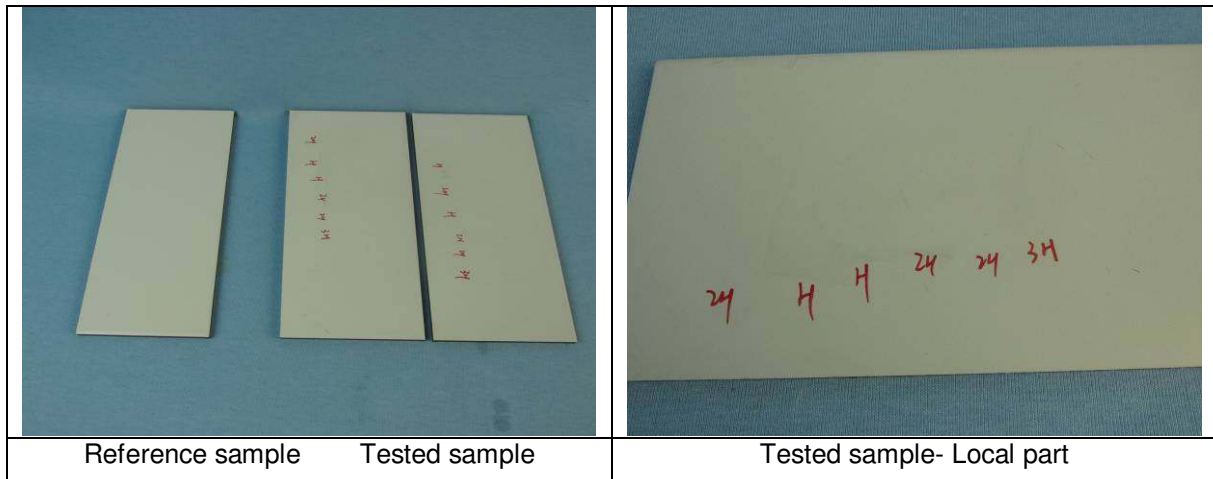
Sample	Pencil Hardness
1	H

Note: According to ASTM D3363-05(2011)<sup>ε2</sup>, 6H is the hardest and the grade 6B is the softest.

6B—5B—4B—3B—2B—B—HB—F—H—2H—3H—4H—5H—6H

Softer←-----→Harder

Test Photo:



Reference sample

Tested sample

Tested sample- Local part



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3. Test Item: Flexibility of Coating

Sample Description: Metal panel with coating

Test Method: ASTM D4145-10 Section 6.1

Test Condition:

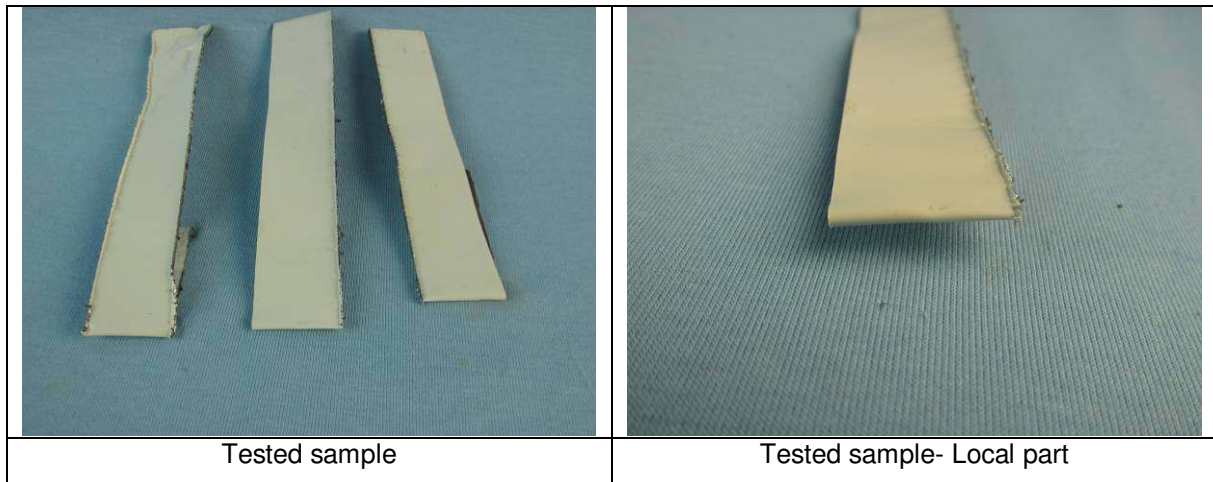
T-Bend

Tape: 3M 610(Scotch®)

Test Result:

Sample	Test Result
1	0T

Test Photo:



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4. Test Item: Falling Sand Abrasion

Sample Description: Metal panel with coating

Test Method: ASTM D968-05(2010) Method A

Test conditions:

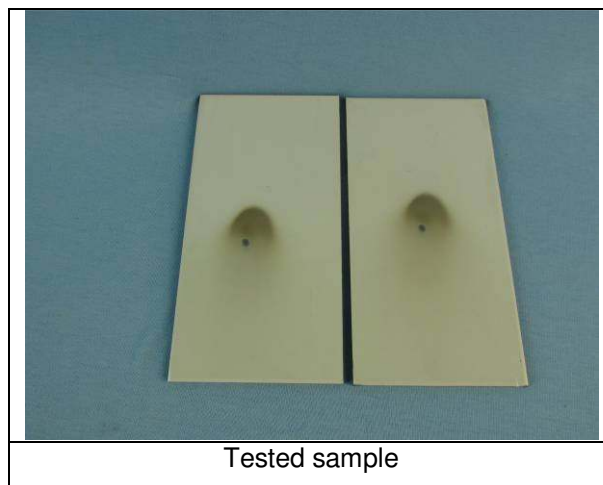
Litres of abrasive: 102.0L

Coating thickness: 1.27mil

Test Result:

Sample	Abrasion resistance
1	80.3L/mil

Test Photo:



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5. Test Item: Dry Adhesion

Sample Description: Metal product with coating

Test Method: With reference to AAMA 2605-05 Section 7.4.1.1 and client's requirement

Test Condition:

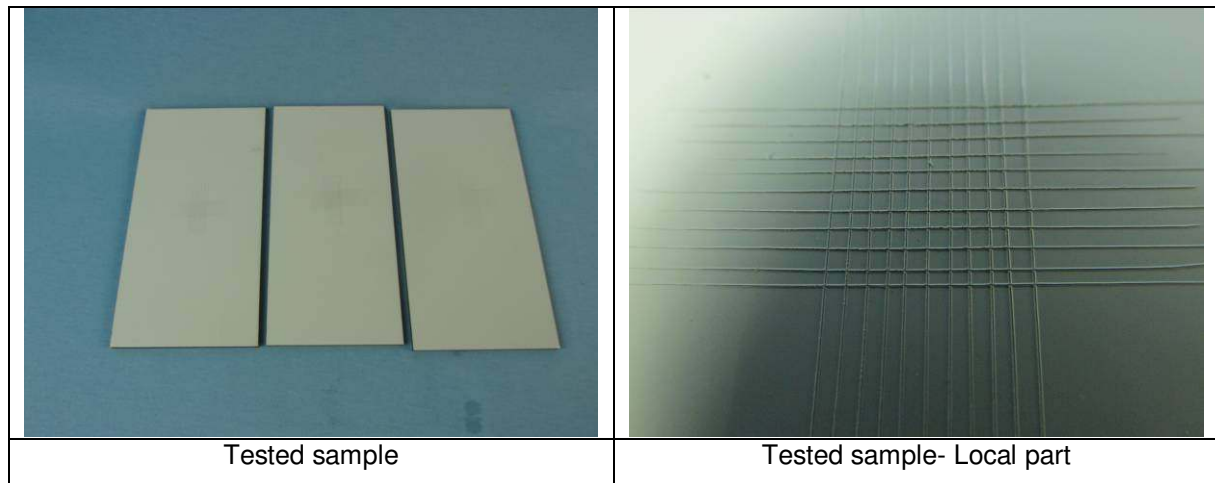
Cut space: 1mm

Tape: Elcometer 99

Test Result:

Sample	Test result
1	No removal of film or loss of adhesion

Test Photo:



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6. Test Item: Boiling Water Adhesion

Sample Description: Metal product with coating

Test Method: With reference to AAMA 2605-05 Section 7.4.1.3, 7.4.1.1 and client's requirement

Test Condition:

Cut space: 1mm

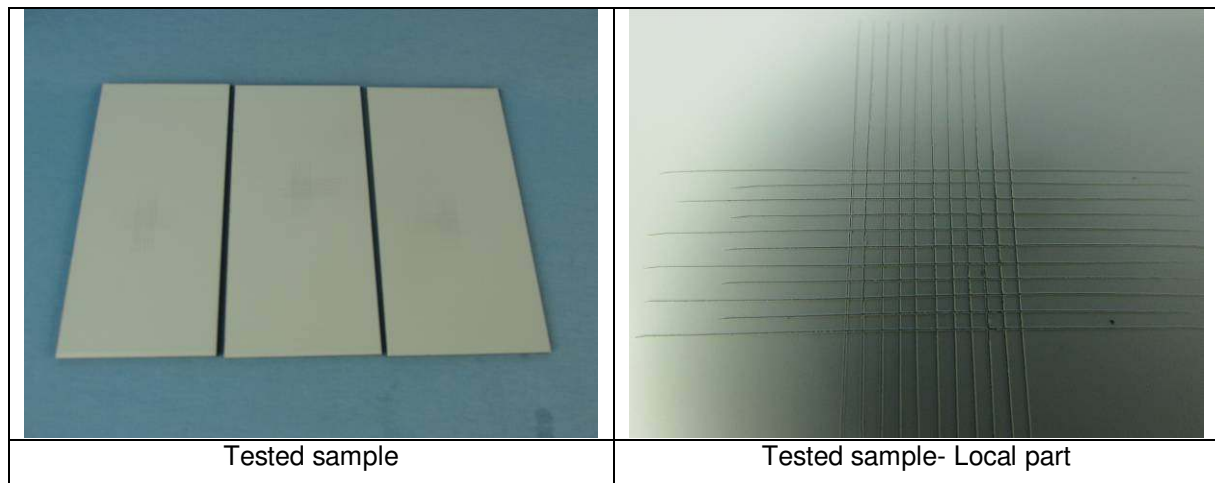
Immersed in boiling water for 20min

Tape: Elcometer 99

Test Result:

Sample	Test result
1	No removal of film, blistering or loss of adhesion

Test Photo:





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7. Test Item: Impact Resistance

Sample Description: Metal product with coating

Test Method: With reference to AAMA 2605-05 Section 7.5 and client's requirement

Test Condition:

Diameter of the punch: 16mm

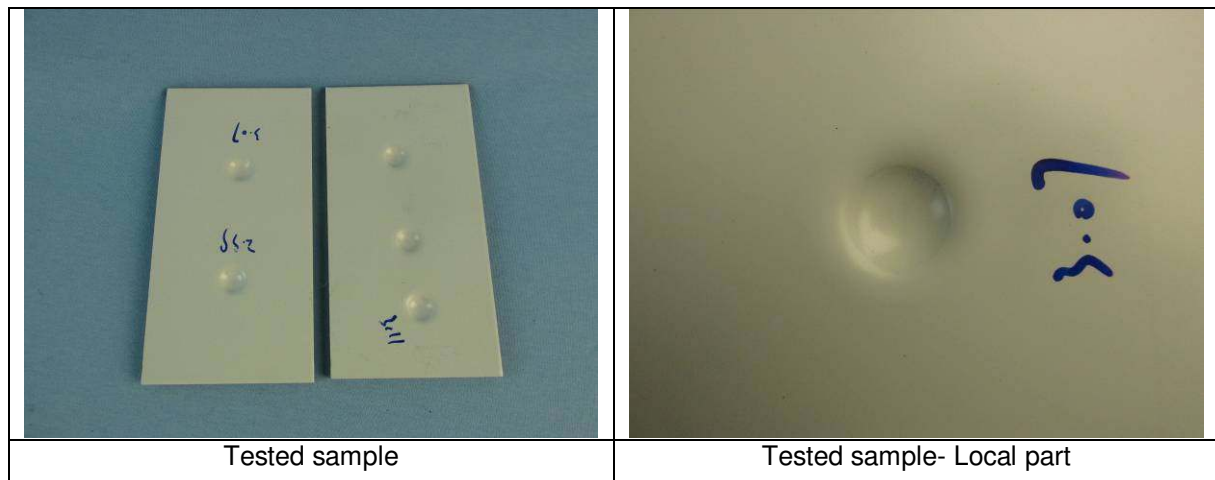
Impact type: Intrusion

Tape: Elcometer 99

Test Result:

Sample	Test result
1	No removal of film

Test Photo:



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8. Test Item: Muriatic Acid Resistance

Sample Description: Metal product with coating

Test Method: With reference to AAMA 2605-05 Section 7.7.1 and client's requirement

Test Condition:

Medium: 10%(V/V) HCl (AR)

Method of contact: Spot method

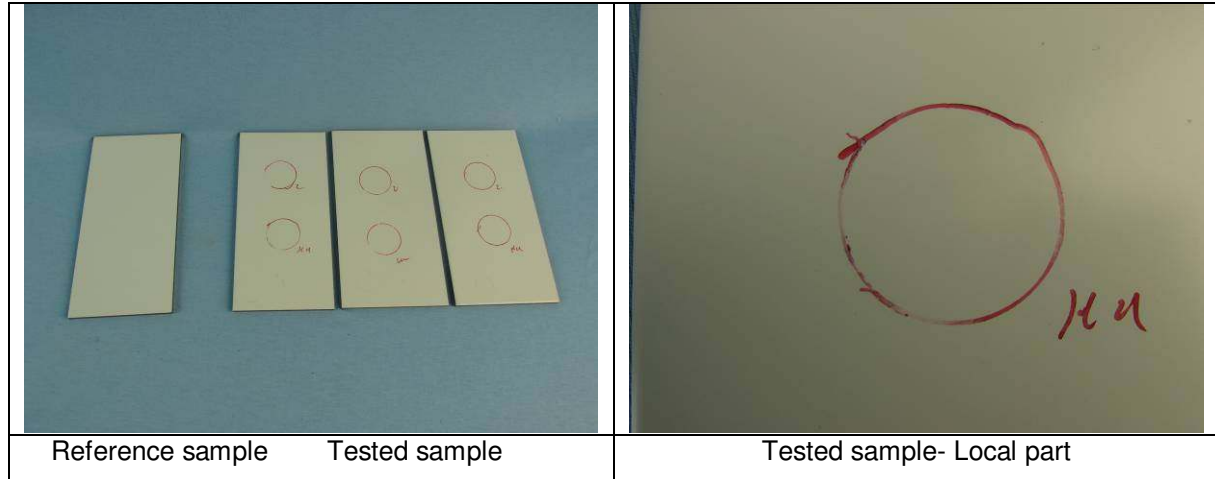
Temperature: Room temperature

Time of contact: 15min

Test Result:

Sample	Test result
1	No blistering or other visual change

Test Photo:



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

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