

Test Report No.: SHHG1512049282HA Date: DEC. 14, 2015 Page: 1 of 13

JIANGSU WANYUAN NEW MATERIALS CO.,LTD XINYE ROAD,SHANGDANG TOWN,DANTU DISTRICT ,ZHENJIANG,JIANGSU,CHINA

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

Sample Description	: MODIFIED ACRYLIC COATING ALU
Sample Receiving Date	: JUL. 01, 2015
Testing Period	: JUL. 01, 2015 TO DEC. 10, 2015
Test Performed	: SELECTED TEST(S) AS REQUESTED BY APPLICANT
Test Requested	: ASTM B117-2011 & ASTM D1654-2008
Test Result(s)	: FOR FURTHER DETAILS, PLEASE REFER TO THE
	FOLLOWING PAGE(S)
Conclusion	: THE TEST DATA WERE PROVIDED TO CLIENT FOR
	THEIR OWN ANALYSIS.

Signed for and on behalf of SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.

Yomoro Gu Supervisor



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Test Conducted:

1. Preliminary Treatment of Test Specimens

Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments (ASTM D1654-2008)

Type of preliminary treatment: Unscribed specimens

2. Exposure of test specimens :

Standard Practice for Operating Salt Spray (Fog) Apparatus (ASTM B117-2011)

Number of tested samples	1 PC			
Protection of test sample	None			
Base metal and coating	Base metal: Aluminum			
	Coating: Acrylic coating			
Method of cleaning	Washed by clean, running water			
specimens(before test)				
Method of cleaning	The specimens shall be carefully rer	noved. Specimens may be		
specimens(after test)	gently washed or dipped in clean rui	nning water not warmer than		
	38 ℃ (100 °F) to remove salt deposit	s from their surface, and		
	then immediately dried			
Method of supporting or	Supported by plastic rack			
suspending				
The duration of the test	3600 hours			
Cause and length of time of	None			
interruptions in the test				
Inspection interval	After 500 hours, every 100 hours			
Inspection result	See test result			
Type of salt and water used in	Sodium chloride: analytical grade			
preparing the salt solution	Water: deionized water			
Salt solution	Dissolving 5±1 parts by weight of sa	It in 95 parts of water		
	Requirement	Result		
Angle of the tested surface were	15~30° from the vertical	30°		
inclined				
Test Temperature	<u>35℃±2℃.</u>	<u>35 ℃.</u>		
Volume of collected solution	1.0~2.0 (mL/h)/80cm ²	1.4(mL/h)/80cm ²		
pH of collected solution at 23±3 ℃	6.5~7.2	7.0		
Concentration or specific gravity	5±1 mass%, or specific gravity	1.033		
at 25 ℃ of solution collected	(Follow table 3)			



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3. Rating Result:

Standard Test Method for Evaluation of Painted or Coated Specimens Subjected to Corrosive Environments (ASTM D1654-2008)

3.1 Procedure B- Evaluation of Unscribed Areas

Use photographic blister standards given in Practice D714 to describe the results of the exposure test with respect to blisters, and Practice D610 to describe the results of the exposure with respect to rusting.

Standard Practice for Evaluating Degree of Rusting on Painted Steel Surfaces (ASTM D 610-2008(R2012))

Sample Description	Rating (According to table 1)	Type of deterioration (According to table 1)
500 hours	Grade 10	/
600 hours	Grade 10	/
700 hours	Grade 10	/
800 hours	Grade 10	/
900 hours	Grade 10	/
1000 hours	Grade 10	/
1100 hours	Grade 10	/
1200 hours	Grade 10	/
1300 hours	Grade 10	/
1400 hours	Grade 10	/
1500 hours	Grade 10	/
1600 hours	Grade 10	/
1700 hours	Grade 10	/
1800 hours	Grade 10	/
1900 hours	Grade 10	/
2000 hours	Grade 10	/
2100 hours	Grade 10	/
2200 hours	Grade 10	/



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2300 hours	Grade 10	/
2400 hours	Grade 10	/
2500 hours	Grade 10	/
2600 hours	Grade 10	/
2700 hours	Grade 10	/
2800 hours	Grade 10	/
2900 hours	Grade 10	/
3000 hours	Grade 10	/
3100 hours	Grade 10	/
3200 hours	Grade 10	/
3300 hours	Grade 10	/
3400 hours	Grade 10	/
3500 hours	Grade 10	/
3600 hours	Grade 10	/

Table 1

Rust grade	Percent of surface rusted	
10	Less than or equal to 0.01	
9	Greater than 0.01 percent and up to 0.03	
8	Greater than 0.03 percent and up to 0.1	
7	Greater than 0.1 percent and up to 0.3	
6	Greater than 0.3 percent and up to 1.0	
5	Greater than 1.0 percent and up to 3.0	
4	Greater than 3.0 percent and up to 10.0	
3	Greater than 10.0 percent and up to 16.0	
2	Greater than 16.0 percent and up to 33.0	
1	Greater than 33.0 percent and up to 50.0	
0	Greater than 50 percent	
Type of deterioration:	S: Spot Corrosion	
	G: General Corrosion	
	P: Pinpoint Corrosion	
	H: Hybrid Corrosion	



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Sample Photo:

Test Report





After test (500 hours)



After test (700 hours)





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After test (800 hours)

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After test (1000 hours)







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After test (1600 hours)

Test Report



After test (1800 hours)



After test (1700 hours)







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After test (2000 hours)

Test Report



After test (2200 hours)

After test (2100 hours)



After test (2300 hours)







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After test (2400 hours)



After test (2600 hours)



After test (2500 hours)







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After test (2800 hours)



After test (3000 hours)



After test (2900 hours)





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