

TEST REPORT: 57S065876-LPL_CORR02

Date: 09 NOV 2006

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SUBJECT

Testing of Nano PVDF coated aluminium composite panel

CLIENT

Jiangyin Pivot Decorative Material Co., Ltd
Pivot Industry Park
9th Huaxi Village Huashi Town
Jiangyin, Jiangsu, China

Attn : Mr Allen Chen

SAMPLE SUBMISSION DATE

01 Sep 2006

DATE TEST CONDUCTED

04 Sep to 08 Nov 2006

SAMPLE DESCRIPTION

One sample of coated aluminium composite panels described as follows was submitted by the above company.

Brand Name	Dimension (mm)	Quantity
"PIVOT"	150 x 100 x 4	35 pieces



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METHOD OF TEST

AAMA 2605-05

"Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels"

- Clause 4.2 - Visual examination
- Clause 4.3 - Total dry-film thickness
- Clause 7.1 - Colour uniformity
- Clause 7.2 - Specular gloss
- Clause 7.3 - Dry film hardness (Using Berol Eagle Turquoise pencil)
- Clause 7.4.1.1 - Dry adhesion
- Clause 7.4.1.2 - Wet adhesion
- Clause 7.4.1.3 - Boiling water adhesion
- Clause 7.5 - Impact resistance (Using a 16 mm diameter indenter)
- Clause 7.6 - Abrasion resistance
- Clause 7.7.1 - Muriatic acid resistance (10% v/v HCl, 15-minute spot test)
- Clause 7.7.2 - Mortar resistance (24-hour pat test)
- Clause 7.7.3 - Nitric acid resistance (70% w/w HNO₃)
- Clause 7.7.4 - Detergent resistance
- Clause 7.7.5 - Window cleaner resistance

RESULTS

1) Total Dry Film Thickness

Location	Total Dry Film Thickness, μm		AAMA 2605-05 Requirement
	Panel A	Panel B	
1	32.3	30.5	Minimum 30 μm
2	32.4	30.5	
3	32.0	30.5	
4	32.0	30.1	
5	31.7	30.3	
Average	32.1	30.4	

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RESULTS (CON'T)

Test Item	"PIVOT" Aluminium Composite	AAMA 2605-05 Requirement
2) Visual examination	Passed	Free from flow lines, streaks, blisters or other surface imperfections
3) Colour uniformity	*	Consistent with the established colour range
4) Specular gloss at 60°	39	Within ± 5 units of manufacturer's specification
5) Dry film scratch hardness	F	Minimum F (No rupture of film)
6) Dry adhesion	No removal of film	No removal of film
7) Wet adhesion	- No blistering - No removal of film	- No blistering - No removal of film
8) Boiling water adhesion	- No blistering - No removal of film	- No blistering - No removal of film
9) Impact resistance	No removal of film from substrate	No removal of film from substrate
10) Abrasion coefficient, (litres/ mil)	40	40 minimum
11) Muriatic acid resistance, 10% (v/v) HCl	- No blistering - No visual change	- No blistering - No visual change
12) Mortar resistance	- Mortar dislodged easily - No residue - No loss of film adhesion - No visual change	- Mortar shall dislodge easily - Any residue shall be removable with a damp cloth - Any lime residue should be easily removed with 10% muriatic acid solution - No loss of film adhesion - No visual change
13) Nitric acid (70% w/w) resistance, colour change, ΔE (Hunter)	1.3	Not more than 5 ΔE units (Hunter)

Note : * test not conducted as reference specimen is not available.

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RESULTS (CON'T)

Test Item	"PIVOT" Aluminium Composite	AAMA 2605-05 Requirement
14) Detergent resistance	<ul style="list-style-type: none">- No loss of film adhesion- No blistering- No significant visual change	<ul style="list-style-type: none">- No loss of film adhesion- No blistering- No significant visual change
15) Window cleaner resistance	<ul style="list-style-type: none">- No removal of film under tape- No blistering- No visual change	<ul style="list-style-type: none">- No removal of film under tape- No blistering- No visual change

A handwritten signature in black ink, appearing to read 'L. Peilin'.

MS LIU PEILIN
TECHNICAL EXECUTIVE

A handwritten signature in black ink, appearing to read 'Wong-Lin Tai Hoe'.

MRS WONG-LIN TAI HOE
PRODUCT MANAGER
COATINGS
CHEMICAL & MATERIALS

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October 2006