Material & Engineering Laboratory-Taichung

TEST REPORT

REPORT NO. TV-16-01058ZA
PAGE NO. 1 OF 2
DATE Apr. 27, 2016

Applicant	KWO LIN CO., LTD.
Product Description	Fluoropolymer powder coating
Product Type	FR
Product Submitted By	KWO LIN CO., LTD.
Received Date	Jul. 30, 2015
Tested Date	Jul. 30, 2015~Apr.27, 2016
Remark	The information mentioned in the above section is provided by Client (Exclude Date of Sample Received and Date of Testing)

Test Result：

Test Item	Test Method	Result	Standard
Specular gloss (60 degree)	AAMA 2605-13	34	---
Film adhesion Dry Wet Boiling water		 5B(100%) 5B(100%) 5B(100%)	 100% 100% 100%
Impact resistance (5/8",160in-lb)		No Crack	No Crack
Dry film thickness (μm)		104	---
Abrasion resistance (L/mil)		>40 (Note 3)	40 Min.
Dry film hardness		2H	---
Humidity resistance (100% RH,100°F, 5000 hrs.)		No Corrosive	No corrosive
Detergent resistance (3% by weight)(100°F,72h)		No blister、No significant changes in appearance	No blister、No significant changes in appearance

The required specification(s) offered in this test report is/are for reference only.
The conformity judgment is at the Applicant's final verdict.

Signed for and on behalf of
SGS TAIWAN Ltd.

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Test Tesult :

Test Item	Test Method	Result	Standard
Weather test (5000 hrs.) a. Color retention (ΔE) b. Gloss retention (%) c. Surface View	ASTM G155-13	 0.77 100 Surface no effect	 5 Max. ---- Surface no effect
Salt spray test (5%NaCl, 5000 hrs.)	ASTM B117-11 (Ref. ASTM D1654-05)	No blister, No Crack Rate 10. Rate 10.	Scribe on cut edges rate≧7 Blister rate≧8
Chemical resistance Muriatic Acid Nitric Acid (ΔE) Mortar	AAMA 2605-13	 Color no change Color no change (0.13) Color no change	 No effect No effect, Color change below 5E Color no change
Resistance to erosion (%)	AAMA 2605-13	100	---

Note: 1.Gloss,Film adhesion, Impact resistance, Dry film hardness, Chemical resistance and Salt spray test are accredited by TAF.
2.Abrasion resistance test is subcontracted to SGS M&E Laboratory-Kaohsiung.
3.Abrasion resistance condition provided by Client, testing to >40 L/mil stop, The coating were broken, But not over 4mm limit.
4. Test Conditions below:
(1) Type of salt used in preparing the salt solution : Class 1
(2) Concentration of solution collected : 5 w/v % NaCl
(3) Type of water used in preparing the salt solution : Distilled water
(4) The temperature within the exposure zone of the closed cabinet (℃) : 35.0±1.0
(5) Salt solution collected (ml/h/80cm^2) : 1.6 (Avg.)
(6) Air pressure (kgf/cm^2) : 1.0 (Avg.)
(7) Method of Cleaning specimen : Maintain initial condition prior to test
: After test by 38℃ warm water cleaning & dry
(8) pH of collected solution : 6.6 (Avg.)
(9) Method of supporting or suspending article in the sail spray chamber : 15°
(10) Description of protection used : The back and sides seal by wax
5. Humidity resistance, Weather test, salt spray test were test on the chromate pretreated Q-Panel AL-36 (provided by Clientwere)
6. This Test Report is an additional original report of TV-16-01058Z. Issued date : Apr. 27, 2016.

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