

REPORT NO. : 2017CE0704 (All in one paint wood,
steel, concrete.)

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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

No.	Type of Tests	Test Methods	Results
16.	Adhesion Test Thickness : > 125 μm Test Method A : X-Cut Tape Test I. Wood Substrate II. Steel substrate III. Concrete substrate	ASTM D3359	 5A ⁽²⁾ 5A ⁽²⁾ 5A ⁽²⁾
17.	Water Vapour Transmission, g/h.m ² ⁽³⁾ Test condition: Test Temperature : 22.9°C Relative humidity : 48.5%	ASTM E96	1.36
18.	Gloss at 60° (Specular reflection value), units	MS 133 : Pt. D5	28.3

Note: ⁽²⁾Classification of Coating Adhesion accordance to ASTM D3359: 09e1 Standard Test Method for Measuring Adhesion by Tape Test

Classification	Description
5A	No peeling or removal
4A	Trace peeling or removal along incisions or at their intersection,
3A	Jagged removal along incisions up to 1.6 mm (1/16 in.) on either side
2A	Jagged removal along most of incisions up to 3.2 mm (1/8 in.) on either side
1A	Removal from most of the area of the X under the tape
0A	Removal beyond the area of X

⁽³⁾ Test was performed by subcontractor



REPORT NO. : 2017CE0704 (Paint Durability)

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Test Results

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21) Test Method : ASTM D3363 - 05(2011)e2: Standard Test Method for Film Hardness by Pencil Test

No.	Type of Test	Test Method	Results
1.	Film Hardness by Pencil ⁽⁵⁾ Test	ASTM D 3363	Gouge Hardness : F Scratch Hardness : H

Notes: Gouge Hardness – The hardest pencil that will leave the film uncut for a stroke length of at least 3 mm.

Scratch Hardness – The hardest pencil that will not rupture or scratch the film.

6H is the hardest Pencil Grade available.

Notes: ⁽⁵⁾Pencil Grade

6B 5B 4B 3B 2B B HB F H 2H 3H 4H 5H 6H
The softest pencil grade → The hardest pencil grade



REPORT NO. : 2017CE0704 (Water proofing)

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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

19) Test Method : BS 1881-122:2011 - Testing Concrete. Method for Determination of Water Absorption

Test Condition

- 1) Drying in Oven : 72 ± 2 hours at $105 \pm 5^\circ\text{C}$
- 2) Duration of Immersion : 30 ± 0.5 minutes
- 3) Sample's Dimension : 100mm x 100mm x 100mm

No.	Samples' Marking	Results	
		Measured Absorption, %	Corrected Absorption ⁽⁴⁾ , %
i.	EASY COLOUR PAINT WATERBASE SERIES	1.7	2.27
ii.	Control	7.16	9.54

Notes: ⁽⁴⁾ Corrected Absorption = Measured Absorption x Correction Factor
Correction Factor = Volume (mm³) ÷ [Surface Area (mm²) × 12.5]



REPORT NO. : 2017CE0704 (Free from heavy metal.)

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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

15) Test Method : Inductively coupled plasma atomic emission spectroscopy

No.	Tests	Requirements of SIRIM Ecolabel Standard #19	Results	Remarks
i.	Mercury (as Hg), ppm	1) Shall not contain the heavy metals 2) The sum of mercury, lead, cadmium and hexavalent chromium shall not exceed 0.01% (100 ppm) by weight	Less than 0.01 ⁽¹⁾	Pass
ii.	Lead (as Pb), ppm		Less than 0.1 ⁽¹⁾	Pass
iii.	Cadmium (as Cd), ppm		Less than 0.01 ⁽¹⁾	Pass
iv.	Chromium (as Cr ⁶⁺), ppm		Less than 0.1 ⁽¹⁾	Pass

Notes: ppm = parts per million
(1) limit of quantitation



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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

No.	Type of Tests	Requirements (MS 134: 2007)	Results	Remarks
1.	Condition in container (MS 134: 2007 – Clause 5.2.1)	The paint shall not show excessive settling in a Storage. When opened, it shall contain the specified quantity, that is, it shall be easily redispersed by simple stirring to a smooth homogeneous state. The paint shall show no curdling, livering, caking or colour separation and shall be free from lumps, skin pieces and foreign matters.	The paint showed no excessive settling in a Storage. When opened, it contained the specified quantity and was redispersed by simple stirring to a smooth homogeneous state. The paint also showed no curdling, livering, caking or colour separation and free from lumps, skin pieces and foreign matters.	Pass
2.1	Application Properties and Appearance a) Brushing (MS 134: 2007 – Clause 5.2.4.1)	a) When applied by brushing it shall show easy brushing and good flowing and lapping properties and shall not exhibit undue pull under the brush.	a) When applied by brushing the paint showed easy brushing and good flowing and lapping properties and did not exhibit undue pull under the brush.	Pass
2.2	Application Properties and Appearance b) Finish (MS 134: 2007 – Clause 5.2.4.4)	b) The paint, when thinned with water in accordance with the manufacturer's instructions, shall brush easily, and possess good leveling properties, when applied at a spreading rate of approximately 13 sq. metres per litre. The paint shall dry to a smooth, matt, uniform film free from runs, sagging, streaking and wrinkling.	b) The paint, when thinned with water in accordance with the manufacturer's instructions, brushed easily, and possessed good leveling properties, when applied at a spreading rate of approximately 13 sq. metres per litre. The paint also dried to a smooth, matt, uniform film free from runs, sagging, streaking and wrinkling.	Pass



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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

20) Test Method : ASTM D2485-91(2013) Standard Test Methods for Evaluating Coatings for High Temperature Service (Method A)

(i) Two (2) panels were exposed to the following condition:

Test condition:

Date : 1/6/17 to 2/6/17
Duration of exposure : 24 hours
Oven Temperature : 90 °C

(ii) Then, one test panel was plunged to water and another panel proceed to bend test.

No.	Type of Tests	Results
1.	Evaluation after water immersion <i>Water Temperature: 21 ± 2.5 °C</i>	There is no coating defect such as dulling, blistering, cracking and loss of adhesion
2.	Evaluation after bend Test (ASTM D522) <i>Mandrel Size: 13mm</i>	There is no coating defect such as cracking and loss of adhesion



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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

No.	Type of Tests	Requirements (MS 134 : 2007)	Results	Remarks
3.	Opacity (contrast ratio), % 1. All others BS 4800 colors and their near equivalents (MS 133 : Pt. D4)	85 (minimum)	95.6	Pass
4.	Colour (MS 133: Pt. D1)	The colour of the paint match that of the standard colour chip in BS 4800 or any reference colour as agreed upon between purchaser and vendor.	The colour of the paint matched with reference colour.	Pass
5.	Consistency, Krebs units, at 27 ± 2°C (MS 133: Pt. A9)	80 (minimum)	77.2	The sample is water- based gloss paint
6.	Washability (MS 133: Pt. F9)	The washability shall be such that a pencil mark is removed and these shall be not more than slight erosion or slight changes in gloss and colour.	The pencil mark was removed without erosion or changes in gloss and colour of the paint.	Pass
7.	Fineness of grind, microns (MS 133 : Pt. C6)	60 (maximum)	40	Pass
8.	Drying time: hard dry, hours (MS 133 : Pt. C3)	2 (maximum)	The paint was hard dried when tested at maximum time.	Pass
9.	Scrubbability, (1500 Cycles) (ASTM D 2486)	There shall be no paint film removal from the substrate.	Not Applicable (for textured paint only)	-



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Test Results

Product : EASY COLOUR PAINT WATERBASE SERIES
Product description : E/U/W WATERBASE SERIES ALL IN ONE PAINT

No.	Type of Tests	Requirements (MS 134 : 2007)	Results	Remarks
10.	Non-volatile matter, % m/m of paint 1. All other colours (MS 133: Pt. B2)	50 (minimum)	54.2	Pass
11.	a) Density at 27°C, g/ml (MS 133: Pt. A12: 2008) b) Specific gravity (% difference from declared value) (MS 133: Pt. A12: 1994)	- ± 3 (maximum)	1.2687 +1.84 S.G obtained : 1.2730 Declared value : 1.25	- Pass
12.	Resistance to accelerated weathering (500 hours) (MS 133: Pt. F8)	a) There shall be no sign of checking, cracking, flaking or blistering and the surface shall be in a satisfactory condition for repainting. b) The film shall, having due regard to its other properties and particular colour concerned show good colour retention (not lower than BS Grey Scale 4) and resistance to chalking and discoloration.	a) There was no sign of checking, cracking, flaking or blistering and the surface was in a satisfactory condition for repainting. b) The film having due regard to its other properties and particular colour concerned showed good colour retention (BS Grey Scale 4/5). It showed resistance to chalking.	Pass Pass
13.	Resistance to fungal growth (28 days) (MS 133: Pt. G6)	The degree of fungal growth shall not exceed a rating of 1.	Rating 0 (No growth on specimen)	Pass
14.	Resistance to algal growth (MS 134 : 2007 - Annex A)	There shall be no sign of algal growth on the paint film.	There was no sign of algal growth on the paint film.	Pass

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Applicant/
Manufacturer : EASY COLOUR ENTERPRISE
1358, Jalan Besar, Taman Mas,
Simpang Ampat, 14100 Seberang Prai Selatan,
Pulau Pinang, Malaysia.

Product : EASY COLOUR PAINT WATERBASE SERIES

Reference standard /
Method of test : MS 134: 2007
Specification for Latex Emulsion Paint for Exterior and Interior Use

Description of sample : Received one (1) sample of **EASY COLOUR PAINT WATERBASE SERIES** for testing was labelled as:
Product : E/U/W WATERBASE SERIES ALL IN ONE PAINT description

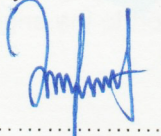
Date received of
complete application : 6th April 2017

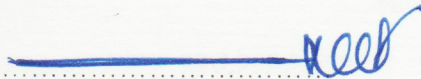
Job no. : J20171400386

Overall test result : The test results of the submitted test sample are described in next pages of this test report.

Issued date : 25th September 2017

Approved Signatory


(MUHAMMAD ZUHAIRI BORHAN)
Testing Executive


(HAHNAS MAHBUT)
Head,
Chemical & Consumer Section (CEST),
Testing Services Department.