

SIRIM QAS International Sdn.Bhd. (Company No.: 410334-X)

CHEMICAL & CONSUMER SECTION, Building 16, No.1, Persiaran Dato' Menteri, P.O.Box 7035, Section 2, 40911 Shah Alam,

Selangor Darul Ehsan, Malaysia Tel. no: 03-55446651/55446658

Fax. no: 03-55446688

TEST REPORT

REPORT NO.: 2010KL1327

PAGE: 1 OF 4

This Test Report refers only to samples submitted by the applicant to SIRIM QAS International Sdn. Bhd. and tested by SIRIM QAS International Sdn. Bhd. This test report shall not be reproduced, except in full and shall not be used for advertising purposes by any means or forms without written approval from Managing Director, SIRIM QAS International Sdn. Bhd. Please refer overleaf for Conditions Relating To The Use of Test Report.

Applicant /Manufacturer :

FAR EAST CIRCLE SDN. BHD.

PLO 103, Jalan Firma 2/3, Taman Perindustrian Tebrau 1,

81100 Johor Bahru, Johor Darul Takzim, Malaysia

Product

Compact Board

Reference standard / Method of test

1) BS EN 438-1: 2005 Specifications for Decorative High Pressure

Laminates (HPL) - Sheets Based on Thermosetting Resins.

2) BS EN 438-2: 2005 - High-Pressure Decorative Laminates (HPL) Sheets Based on Thermosetting Resins (Usually Called Laminates)

Determination of Properties.

Description of sample

Received one (1) sample of Compact Board for testing, which was

labeled as:

Brand

: Cubism

Model

: CB - 9922 - Texture

Date received

16th July 2010

Job No.

J20105081063

Issue date

05th October 2010

Approved Signatory

Senior Technical Executive

(HAHNAS MAHBUT)

Head,

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

7.0 CONDITIONS RELATING TO THE USE OF SIRIM QAS INTERNATIONAL TEST REPORT

- 7.1 A Test Report will be issued in respect of Testing Services conducted and shall relate only to the Sample actually tested. SIRIM QAS International makes no warranty whatsoever and the Applicant shall not represent in any manner that any duplication or mass production of the Product is same as the Sample actually tested or that SIRIM QAS International has tested any of the duplicated or mass produced Product.
- 7.2 The Test Report shall not be amended, changed, varied or modified in any manner whatsoever by the Applicant or otherwise.
- 7.3 If the Test Report is to be furnished to any third party or to the public, each such Test Report shall be furnished in full, legible and in its entirety.
- 7.4 The Test Report shall not be reproduced and shall not in any manner be used for any advertising purposes or whatsoever without written approval from the Managing Director of SIRIM QAS International of No. 1, Persiaran Dato' Menteri, Building 8, Section 2, P.O. Box 7035, 40911 Shah Alam, Selangor Darul Ehsan.
- 7.5 Further or in the alternative, it is strictly forbidden unless with prior written approval from the Managing Director of SIRIM QAS International, to represent in any manner whatsoever that SIRIM and/or other SIRIM's subsidiaries has endorsed, approved or validated the Product of the Applicant in any manner whatsoever.
- 7.6 The use of SIRIM QAS International, SIRIM or other SIRIM's subsidiaries logo and/or words such as "SIRIM: Tested and Proven" and similar representations are strictly forbidden in any manner whatsoever without the prior written approval from the Managing Director of SIRIM QAS International.
- 7.7 In the event the Applicant is found in breach of this provision, SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries without prejudice to any other right and remedies may take whatever action necessary including but not limited to:
 - a) Informing and placing a notice in the media;
 - b) Obtaining an injunction from Court (cost on a solicitor-client basis to be borne by the Applicant);
 - c) Refusing to accept any further Product for Testing Services from the Applicant or whosoever related to the Applicant, whether subsidiary or otherwise;
 - d) Instructing the Applicant to withdraw and recall the advertisement, statement or document in question and advertise a clarification and apology to SIRIM QAS International, SIRIM and/or other SIRIM's subsidiaries twice in anational publication of SIRIM QAS International's choice at the Applicant's sole cost; and
 - e) Informing or lodging a report pertaining the Applicant's Test Report with the relevant authorities.
- 7.8 In the event of an investigation from any third party concerning the Applicant's Test Report, SIRIM QAS International may disclose the same for purposes of such investigation.
- 7.9 If such approval is obtained from the Managing Director of SIRIM QAS International, the Applicant may only include the phrase. "A sample of this product has been tested by SIRIM QAS International... (Test Report No) ... (dated) (for what test) ... (to which standard)" or such similar words which stress that only the Sample was actually tested.
- 7.10 Certified true copies of the Test Report may be issued upon request by the Applicant upon payment of the relevant fee.

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Test Results

Product

: Compact Board

Brand

: Cubism

Model

: CB - 9922 - Texture

Test Method: BS EN 438-2: 2005 - High-Pressure Decorative Laminates (HPL) Sheets Based on Thermosetting Resins (Usually Called Laminates) Determination of Properties.

No.	Type Of Test	Requirements BS EN 438-1: 2005 (VGP)	Results	Remarks	
1.	Thickness, mm (BS EN 438-Part 5)	Nominal thickness: $2.0 < t < 2.5$ Maximum variation: ± 0.18 mm	0.02 mm	Complied	
2.	Assessment of Appearance				
2.1	Surface Defect (BS EN 438-2:2005)	When inspected at a distance of 1.5 m, the following surface defects are permissible:			
2.1.1	Spots, dirt and similar surface defects	Spots, dirt and similar surface defects shall be not more than 1.0 mm ² /m ² No spots, dirt and similar surface defects was observed		Complied	
2.1.2	Fibers, hairs, scratches	Fibres, hair or scratches shall be not more than 10 mm ² /m ²	No fibers, hair and scratches was observed	Complied	
2.1.3	Combinations of surfaced defects	The maximum level for each of the two types of defect shall not exceed half of the levels prescribed above.	No defect of both surface defects	Complied	
2.2	Edge defects	Visual defects (e.g. moisture marks, lack of gloss, etc.) can be present on all four edges soft the laminate providing the defect-free length and width are not more than 20 mm shorter than the nominal length and width.	No visual defect on all four edges.	Complied	
2.3	Broken corners	One broken corner of ≤3 cm or two broken corners of ≤1,5 cm are allowed	No broken corner was observed	Complied	
3.	Resistance to surface wear (BS EN 438-Part 10)	Index number 2 $IP \ge 50 \text{ rev.}$ $(IP + FP)/2 \ge 150 \text{ rev.}$	275 rev. 371 rev.	Complied Complied	

ABDUL AZIZ HARON

Senior Testing Executive mer Section Chemical & C SIRIM QAS International Sdn Rhd

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Product

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Model

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Test Method: BS EN 438-2: 2005 - High-Pressure Decorative Laminates (HPL) Sheets Based on

Thermosetting Resins (Usually Called Laminates) Determination of Properties.

No. Type Of Test		Requirements BS EN 438-1: 2005 (VGP)	Results	Remarks
4.	Resistance to boiling water. (BS EN 438-Part 12)			
4.1	Mass increase, %	15 (Maximum)	1.2	Complied
4.2	Thickness increase, %	16 (Maximum)	6.8	Complied
4.3	Appearance, Grade	4 (Minimum) 5, No visible change		Complied
5.	Dimension stability at 20°C (BS EN 438-Part 18)		11:00	
5.1	Machine direction, %	0.3 (Maximum)	n) 0.33	
5.2	Cross direction, %	0.4 (Maximum)	(Maximum) 0.33	
6.	Resistance to stain, Grade (BS EN 438-Part 26)	5 (Minimum)		
	a) Petrol		5, No visible change	Complied
	b) Acetone		5, No visible change	Complied
	c) Citric Acid		5, No visible change	Complied
	d) 5% carbolic acid		5, No visible change	Complied
	e) Aqueous Ammonia		5, No visible change	Complied
	f) Spirit		5, No visible change	Complied
	g) Meat		5, No visible change	Complied
	h) Vegetable oil		5, No visible change	Complied
	i) Vinegar		5, No visible change	Complied
	j) Mustard		5, No visible change	Complied
	k) Onions		5, No visible change	Complied
	l) Soap		5, No visible change	Complied
	m) Cola beverage		5, No visible change	Complied
	n) Coffee		5, No visible change	Complied
	o) Fruit juice		5, No visible change	Complied
	p) Lipstick		5, No visible change	Complied
	q) Shoe cream		5, No visible change	Complied
	r) Milk		5, No visible change	Complied

ABDUL AZIZ HARON Senior Testing Executive Chemical & Commer Section SIRIM QAS International Sdn. Bhd.

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Test Method : BS EN 438-2: 2005 - High-Pressure Decorative Laminates (HPL) Sheets Based on Thermosetting Resins (Usually Called Laminates) Determination of Properties.

No.	Type Of Test	Requirements BS EN 438-1: 2005 (VGP)	Results		Remarks
7.	Resistance to cigarette burns, Grade (BS EN 438-Part 30)	-	4, very slight discoloration There was no other defects observed		-
8.	Resistance to steam, Grade (BS EN 438-Part 14)	4 (Not worst than)	5, No visible change		Complied
9.	Resistance to crazing, Grade (BS EN 438-Part 24)	-	4, Decorative surfaces and edges unchanged from "as received" condition, with slight hairline cracks.		•
10.	Color Fastness to light (120hr) (BS EN 438-Part 27)	Blue wool standard No. 6 (Minimum)	Blue wool standard No. 7		Complied
11.	Antimicrobial surface test (JIS Z 2801)		Treated (Compact Board)	Untreated (Glass Plate)	
11.1	No. of viable cells of bacteria at 0hour	•	2.8 x 10 ⁵	3.0×10^5	•
11.2	No. of viable cells of bacteria after 24hour	<u> </u>	Less than 10	1.7×10^7	-
11.3	Value of antimicrobial activity*	-	6.2		-
11.	Resistance to fungal growth, Rating (ASTM G21)	-	(No growth on specimen)		-

Note: * The value of antimicrobial activity obtained by the testing methods of this standard shall not be less than 2.0 for the antimicrobial efficacy of antimicrobial products.

> ABDUL AZZ HARON Senior Testing Executive Chemical & Consumer Section

SIRIM QAS International Sdn. Bhd.