



Test Report

No. GZSCR0512109168/LP Date : JAN 06, 2006 Page 1 of 6

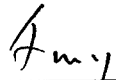
KINGBOARD LAMINATES (MACAO COMMERCIAL OFFSHORE) LIMITED
AV. DA PRAIA GRANDE NO.599, EDIFICIO COMMERCIAL RODRIGUES, 3RD ANDAR B. MA CAU

Report on the submitted sample said to be 覆铜板 KB-3151CTI

SGS Ref. No. : GZ051218685EC-7.1, 2047827/EC
Sample Receiving Date : DEC 20 2005
Testing Period : DEC 20 - 30 2005

- Test Requested : With reference to RoHS Directive 2002/95/EC for testing item 1) – 5)
- 1) To determine the Cadmium Content in the submitted sample.
 - 2) To determine the Lead Content in the submitted sample.
 - 3) To determine the Mercury Content in the submitted sample.
 - 4) To determine the Hexavalent Chromium Content on the submitted sample.
 - 5) Determination of PBBs (polybrominated biphenyls), PBDEs (Polybrominated diphenylethers) of the submitted sample.
 - 6) To determine of PCBs (Polychlorinated biphenyl) of submitted sample.
 - 7) To determine of Polychlorinated Naphthalene of the submitted sample.
 - 8) To determine of Chlorinated Paraffin (C10~C13) of the submitted sample.
 - 9) To determine the Tributyltin (TBT), Triphenyltin (TPT) of the submitted sample.
 - 10) To determine the Mirex of the submitted sample.
 - 11) To determine Formaldehyde Content in the submitted sample.
 - 12) Identification of PVC Material.
 - 13) Analysis of Azo Dye on the submitted sample.
 - 14) To determine the Asbestos Fibres in the submitted sample.
 - 15) To determine the Halogen (Cl) contents of submitted sample.

Signed for and on behalf of
SGS-CSTC Ltd.


Zhang Li, Amy
Sr. Engineer

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days. This Test Report shall not be reproduced except in full, without written approval of the Company.

GZCM 424247

SGS-CSTC Standards Technical Services Co., Ltd.
Guangzhou Economic & Technological Laboratory

198 KEZHU Road, SCIENTECH Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
中国·广州·经济技术开发区科学城科珠路198号 邮编:510663

t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com
t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

Member of SGS Group (Société Générale de Surveillance)

- Test Method : 1-3) With reference to EPA Method 3051/ 3052.
Analysis was performed by Inductively Coupled Argon Plasma-Atomic Emission Spectrometry (ICP-AES).
- 4) With reference to EPA Method 3060A & 7196A.
The sample was alkaline digested by using EPA Method 3060A, and then analyzed by using Colorimetric method 7196A (by UV-Vis Spectrophotometer).
- 5) With reference to EPA Method 3540C/ 3550C. Analysis was performed by GC/MS or LC/ MS.
- 6) With reference to SGS in-house method. Analysis was performed by GC/ECD.
- 7) With reference to SGS in-house method. Analysis was performed by GC/MS.
- 8) With reference to SGS in-house method. Analysis was performed by GC/ECD.
- 9) With reference to DIN 38407-13. Analysis was performed by GC/FPD.
- 10) With reference to SGS in-house method. Analysis was performed by GC-ECD.
- 11) With reference to BS EN ISO 14184-1:1999 – Textile – Determination of Formaldehyde Part 1: Free and hydrolyzed formaldehyde (water extraction method).
- 12) Analysis was performed by Fourier Transform Infrared Spectroscopy.
- 13) As per EN 14362-1:2003. By Gas Chromatographic Mass Spectrometry (GC-MS)/Thin Layer Chromatography (TLC) Technique.
- 14) In-house method-TPE/002/A of "Identification of Asbestos Bulk Samples" which is based on the Asbestosis Research Council's Technical Note 3, "Recommendations for the Sampling and Identification of Asbestos in Asbestos Products".
- 15) With reference to pr EN14582 Method B. Analysis was performed by IC method.

Test Results : 1-15) Please refer to next page.

Conclusion : 1-5) When tested as specified, the submitted sample complies with the requirements of Commission Decision of 18 Aug 2005 amending Directive 2002/95/EC notified under document 2005/618/EC.

Comment : 13) Based on the test result, azo colorants which can release one or more of the listed amines by cleavage of their azo group/s were not detected in sample (s) or the commodity submitted.

Forbidden Arylamines for Azo Dye Regulations

- No. 1-22 – Commission of the European Communities: Directive 2002/61/EC adopted by the Council on 19 July 2002

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days only. This Test Report shall not be reproduced except in full, without written approval of the Company.

Test Report

No. GZSCR0512109168/LP Date : JAN 06, 2006 Page 3 of 6

Test Results

1-4) Test Item	No.1	Detection Limit	Limit
Cadmium (Cd)	ND	2 ppm	100 ppm
Lead (Pb)	ND	2 ppm	1000 ppm
Mercury (Hg)	ND	2 ppm	1000 ppm
Hexavalent Chromium (Cr ⁶⁺)	ND	2 ppm	1000 ppm

(Results shown are of the total weight of samples)

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value
 Test results were obtained by SGS affiliated laboratory

5)

Flame Retardants	No.1	Detection Limit	Limit
Polybrominated Biphenyls (Mono - Deca)	ND	50 ppm	1000 ppm
Monobromobiphenyl	ND	5 ppm	--
Dibromobiphenyl	ND	5 ppm	--
Tribromobiphenyl	ND	5 ppm	--
Tetrabromobiphenyl	ND	5 ppm	--
Pentabromobiphenyl	ND	5 ppm	--
Hexabromobiphenyl	ND	5 ppm	--
Heptabromobiphenyl	ND	5 ppm	--
Octabromobiphenyl	ND	5 ppm	--
Nonabromobiphenyl	ND	5 ppm	--
Decabromobiphenyl	ND	5 ppm	--
Polybrominated Diphenylethers (Mono - Nona)	ND	45 ppm	1000 ppm
Monobromodiphenyl ether	ND	5 ppm	--
Dibromodiphenyl ether	ND	5 ppm	--
Tribromodiphenyl ether	ND	5 ppm	--
Tetrabromodiphenyl ether	ND	5 ppm	--
Pentabromodiphenyl ether	ND	5 ppm	--
Hexabromodiphenyl ether	ND	5 ppm	--
Heptabromodiphenyl ether	ND	5 ppm	--
Octabromodiphenyl ether	ND	5 ppm	--
Nonabromodiphenyl ether	ND	5 ppm	--
Decabromodiphenyl ether*	ND	5 ppm	See remark

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value.
 Test results were obtained by SGS affiliated laboratory

Remark: * Decabromodiphenyl ether (DecaBDE) in polymeric applications is exempted by Commission Decision of 13 Oct 2005 amending Directive 2002/95/EC notified under document 2005/717/EC.

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days. This Test Report shall not be reproduced except in full, without written approval of the Company.



Test Report

No. GZSCR0512109168/LP Date : JAN 06, 2006 Page 4 of 6

Test Result (Cont'd) :

6) Compounds	No.1	Detection Limit
PCBs (Polychlorinated Biphenyls)	ND	5 ppm

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value
 Test results were obtained by SGS affiliated laboratory

7) Compounds	No.1	Detection Limit
1-Chloronaphthalene	ND	0.5 ppm
2-Chloronaphthalene	ND	0.5 ppm
1,4-Dichloronaphthalene	ND	0.5 ppm
1,2,3-Trichloronaphthalene	ND	0.5 ppm
1,2,3,4-Tetrachloronaphthalene	ND	0.5 ppm
1,2,3,4,5-Pentachloronaphthalene	ND	0.5 ppm
Octachloronaphthalene	ND	1.0 ppm

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value
 Test results were obtained by SGS affiliated laboratory

8) Compounds	No.1	Detection Limit
Chlorinated Paraffin	ND	50 ppm

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value
 Test results were obtained by SGS affiliated laboratory

9) Test Item	No.1	Detection Limit
Tributyltin (TBT)	ND	0.03 ppm
Triphenyltin (TPT)	ND	0.03 ppm

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value
 Test results were obtained by SGS affiliated laboratory

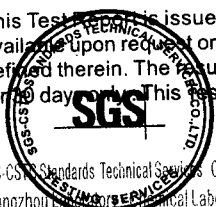
10) Mirex	CAS	No.1	Detection Limit
	2385-85-5	N.D.	0.05 ppm

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value

11) Formaldehyde Content	No.1	Detection Limit
	ND	10 mg/kg

Note : ppm = mg/kg
 ND = Not Detected
 Not detected is reported when the reading is less than detection limit value

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days only. This Test Report shall not be reproduced except in full, without written approval of the Company.



SGS-CTI Standards Technical Services Co., Ltd.
 Guangzhou Chemical Laboratory

198 KEZHU Road, SCIENTECH Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663
 t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com
 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

GZCM 424250

12) <u>Sample</u> No.1	<u>Conclusion</u> The sample does not contain Poly (Vinyl chloride)
------------------------------	--

Note : Test results were obtained by SGS affiliated laboratory

Test Results (Cont'd) :

13) <u>No.</u> <u>Forbidden Amines Substances</u>	<u>CAS-No.</u>	<u>No.1</u>
1. 4-aminodiphenyl/xenylamine/ Biphenyl-4-ylamine	92-67-1	n.d.
2. Benzidine	92-87-5	n.d.
3. 4-chlor- <i>o</i> -toluidine	95-69-2	n.d.
4. 2-naphthylamine	91-59-8	n.d.
5. <i>o</i> -aminoazotoluene/ 4- <i>o</i> -tolylazo- <i>o</i> -toluidine/ 4-amino-2',3-dimethylazobenzene	97-56-3	n.d.
6. 2-amino-4-nitrotoluol/5-nitro- <i>o</i> -toluidine	99-55-8	n.d.
7. <i>p</i> -chloranilin/4-chloroaniline	106-47-8	n.d.
8. 2,4-diaminoanisol/ 4-methoxy- <i>m</i> -phenylenediamine	615-05-4	n.d.
9. 4,4'-diaminodiphenylmethane/ 4,4-methylenedianiline	101-77-9	n.d.
10. 3,3'-dichlorobenzidine/ 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1	n.d.
11. 3,3'-dimethoxybenzidine/ <i>o</i> -dianisidine	119-90-4	n.d.
12. 3,3'-dimethylbenzidine/4,4'-bi- <i>o</i> -Toluidine	119-93-7	n.d.
13. 3,3'-dimethyl-4,4'-diaminodipenylmethane/ 4,4'-methylenedi- <i>o</i> -toluidine	838-88-0	n.d.
14. <i>p</i> -cresidin/6-methoxy- <i>m</i> -toluidine	120-71-8	n.d.
15. 4,4'-methylen-bis-(2-chloro-aniline)/ 2,2'-dichloro-4,4'methylene-dianiline	101-14-4	n.d.
16. 4,4'-oxydianiline	101-80-4	n.d.
17. 4,4'-thiodianiline	139-65-1	n.d.
18. <i>o</i> -toluidine/2-aminotoluene	95-53-4	n.d.
19. 2,4-toluylendiamine/ 4-methyl- <i>m</i> -phenylenediamine	95-80-7	n.d.
20. 2,4,5-trimethylaniline	137-17-7	n.d.
21. 4-aminoazobenzene*	60-09-3	n.d.
22. <i>o</i> -anisidine/ 2-methoxyaniline	90-04-0	n.d.
Overall Rating		PASS

Relevant Requirement (2002/61/EC) :
No relevant amine exceeding 30 ppm (mg/kg)

Note : n.d. = not detectable
Detection Limit = 5 ppm (mg/kg)
Test results were obtained by SGS affiliated laboratory

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days only. This Test Report shall not be reproduced except in full, without written approval of the Company.

GZCM 424545



Test Report

No. GZSCR0512109168/LP Date : JAN 06, 2006 Page 6 of 6

Test Results (Cont'd) :

14)		<u>No.1</u>
<u>Compounds</u>		
Asbestos Fibres		Not – detected

Remark : Test was conducted by outsider laboratory

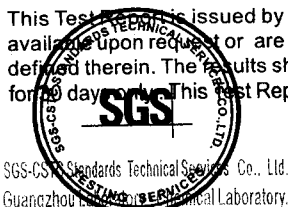
15)			
<u>Test Item</u>	<u>CAS No.</u>	<u>No.1</u>	<u>Detection Limit</u>
Chlorine (Cl)	007782-50-5	N.D.	50 ppm

- Note :
- 1) ppm = mg/kg
 - 2) N.D. = Not detected
 - 3) Not detected was reported when the reading is less than detection limit value
 - 4) Test results were obtained by SGS affiliated laboratory.

Sample Description :
No.1 Brown Plastic / Coppery Metal w/ Red Printing

*** End of Report ***

This Test Report is issued by the Company subject to its General Conditions of Service printed overleaf or attached. Said Conditions are also available upon request or are accessible at www.sgs.com. Attention is drawn to the limitations of liability, indemnification and jurisdictional policies defined therein. The results shown in this Test Report refer only to the sample(s) tested unless otherwise stated and such sample(s) are retained for 90 days only. This Test Report shall not be reproduced except in full, without written approval of the Company.



198 KEZHU Road, SCIENTECH Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20)82155555 f (86-20)82075113 www.cn.sgs.com
 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20)82155555 f (86-20)82075113 e sgs.china@sgs.com

GZCM 424561