



# Test Report

KINGBOARD LAMINATES  
(MACAO COMMERCIAL OFFSHORE) LIMITED  
AV. DA PRAIA GRANDE NO. 599, EDIFICIO COMMERCIAL  
RODRIGUES, 3<sup>rd</sup> ANDAR B, MACAO

Report No. : CE/2005/B4538  
Date : 2005/11/25  
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**The following merchandise was (were) submitted and identified by the client as :**

Type of Product : SZECO051124668EC3-2 KB-5150 [ANSI TYPE: CEM-1]  
Manufacturer/Vendor : KINGBOARD  
Sample Received : 2005/11/18  
Testing Date : 2005/11/18 TO 2005/11/25

=====

**Test Result** : - Please see the next page -

  
Daniel Yen, M.R., Operation Manager  
Signed for and on behalf of  
SGS TAIWAN LTD.

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**SZE 124513**



# Test Report

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## Test Result

PART NAME NO.1 : MIXED ALL PARTS

Test Item (s):	Unit	Method	MDL	Result
				No.1
Asbestos				
Anthrophyllite(CAS NO.017068-78-9)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Amosite(CAS NO.012172-73-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Tremolite(CAS NO.014567-73-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Chrysotile(CAS NO.012001-29-5)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Crocidolite(CAS NO.012001-28-4)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative
Actinolite(CAS NO.013768-00-8)	%	As per NIOSH 9000 method. Analysis was performed by XRD.	1	Negative

Test Item (s):	Unit	Method	MDL	Result
				No.1
AZO		As per LMBG 8202-2		
4-AMINODIPHENYL (CAS NO.92-67-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
BENZIDINE (CAS NO.92-87-5)	ppm	Analysis was performed by GC/MS.	3	N.D.
4-CHLORO-O-TOLUIDINE (CAS NO.95-69-2)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-NAPHTHYLAMINE (CAS NO.91-59-8)	ppm	Analysis was performed by GC/MS.	3	N.D.

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SZE 124514



# Test Report

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Test Item (s):	Unit	Method	MDL	Result
				No.1
O-AMINOAZOTOLUENE (CAS NO.97-56-3)	ppm	Analysis was performed by GC/MS.	3	N.D.
2-AMINO-4-NITROTOLUENE (CAS NO.99-55-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CHLOROANILINE (CAS NO.106-47-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4-DIAMINOANISOLE (CAS NO.615-05-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4- DIAMINODIPHENYLMETHAN E (CAS NO.101-77-9)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DICHLOROBENZIDINE (CAS NO.91-94-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHOXYBENZIDINE (CAS NO.119-90-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYLBENZIDINE (CAS NO.119-93-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
3,3-DIMETHYL-4,4- DIAMINODIPHENYLMETHAN E (CAS NO.838-88-0)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-CRESIDINE(2-METHOXY-5- METHYLANILINE) (CAS NO.120-71-8)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-METHYLENE-BIS-(2- CHLORANILINE) (CAS NO.101-14-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-OXYDIANILINE (CAS NO.101-80-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
4,4-THIODIANILINE (CAS NO.139-65-1)	ppm	Analysis was performed by GC/MS.	3	N.D.
O-TOLUIDINE (CAS NO.95- 53-4)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4-TOLUYLENDIAMINE (CAS NO.95-80-7)	ppm	Analysis was performed by GC/MS.	3	N.D.
2,4,5-TRIMETHYLANILINE (CAS NO.137-17-7)	ppm	Analysis was performed by GC/MS.	3	N.D.

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SZE 124515



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Test Item (s):	Unit	Method	MDL	Result
				No.1
O-ANISIDINE (CAS NO.90-04-0)	ppm	Analysis was performed by GC/MS.	3	N.D.
P-AMINOAZOBENZENE (CAS NO.60-09-3)	ppm	Analysis was performed by GC/MS.	3	N.D.

Test Item (s):	Unit	Method	MDL	Result
				No.1
Chlorinated Paraffin (C10~C13) (CAS NO:010871-26-2)	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by GC/MS or GC/ECD.	0.01	N.D.

Test Item (s):	Unit	Method	MDL	Result
				No.1
Formaldehyde(CAS No:000050-00-0)	ppm	With reference to DIN 53315 & USEPA 8315A. Analysis was performed by HPLC/DAD/MS	0.2	6.57

Test Item (s):	Unit	Method	MDL	Result
				No.1
Mirex(CAS NO:002385-85-5)	ppm	Analysis was performed by GC/MS.	4	N.D.

Test Item (s):	Unit	Method	MDL	Result
				No.1
Organic-tin compounds				
Triphenyl Tin(TPT)(CAS NO:000668-34-8)	ppm	With reference to 89/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.
Tributyl Tin(TBT)	ppm	With reference to 89/677/EEC & DIN 38407. Analysis was performed by GC/FPD.	0.03	N.D.

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Test Item (s):	Unit	Method	MDL	Result
				No.1
PCBs(Polychlorinated Biphenyls)(CAS NO:001336-36-3)	ppm	With reference to USEPA 8082A. Analysis was performed by GC/MS or GC/ECD.	0.5	N.D.

Test Item (s):	Unit	Method	MDL	Result	
				No.1	
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	
Dibromobiphenyl	%		0.0005	N.D.	
Tribromobiphenyl	%		0.0005	N.D.	
Tetrabromobiphenyl	%		0.0005	N.D.	
Pentabromobiphenyl	%		0.0005	N.D.	
Hexabromobiphenyl	%		0.0005	N.D.	
Heptabromobiphenyl	%		0.0005	N.D.	
Octabromobiphenyl	%		0.0005	N.D.	
Nonabromobiphenyl	%		0.0005	N.D.	
Decabromobiphenyl	%		0.0005	N.D.	
<b>Total PBBs (Polybrominated biphenyls)/Sum of above</b>	%		-	N.D.	
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.	
Dibromobiphenyl ether	%		0.0005	N.D.	
Tribromobiphenyl ether	%		0.0005	N.D.	
Tetrabromobiphenyl ether	%		0.0005	N.D.	
Pentabromobiphenyl ether	%		0.0005	N.D.	
Hexabromobiphenyl ether	%		0.0005	N.D.	
Heptabromobiphenyl ether	%		0.0005	N.D.	
Octabromobiphenyl ether	%		0.0005	N.D.	
Nonabromobiphenyl ether	%		0.0005	N.D.	
Decabromobiphenyl ether	%		0.0005	N.D.	
<b>Total PBBEs(PBDEs) (Polybrominated biphenyl ethers)/Sum of above</b>	%			-	N.D.
<b>Total of Mono to Nona-brominated biphenyl ether. (Note 4)</b>	%			-	N.D.

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SIZE 124517



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Test Item (s):	Unit	Method	MDL	Result
				No.1
Polychlorinated Naphthalene	ppm	With reference to USEPA 8081B. Analysis was performed by GC/MS.	5	N.D.

Test Item (s):	Unit	Method	MDL	Result
				No.1
PVC (CAS No:9002-86-2)	%	Analysis was performed by FTIR/ATR and Pyrolyzer-GC/MS.	1	Negative

Test Item (s):	Unit	Method	MDL	Result
				No.1
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.

- NOTE: (1) N.D. = Not detected (<MDL)  
(2) ppm = mg/kg  
(3) MDL = Method Detection Limit  
(4) 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.  
(5) PBBEs=PBDEs=Polybrominated Diphenyl Ethers=PBDOs=PBBOs.  
(6) " - " = Not Regulation  
(7) " --- " = Not Applicable  
(8) \* = Results shown are of the adjusted analytical results  
(9) \*\* = Qualitative analysis (No Unit)  
(10) Negative = < 1.0 %, Positive = > 1.0 %  
(11) The MDL is 5ppm for the single compound of CP

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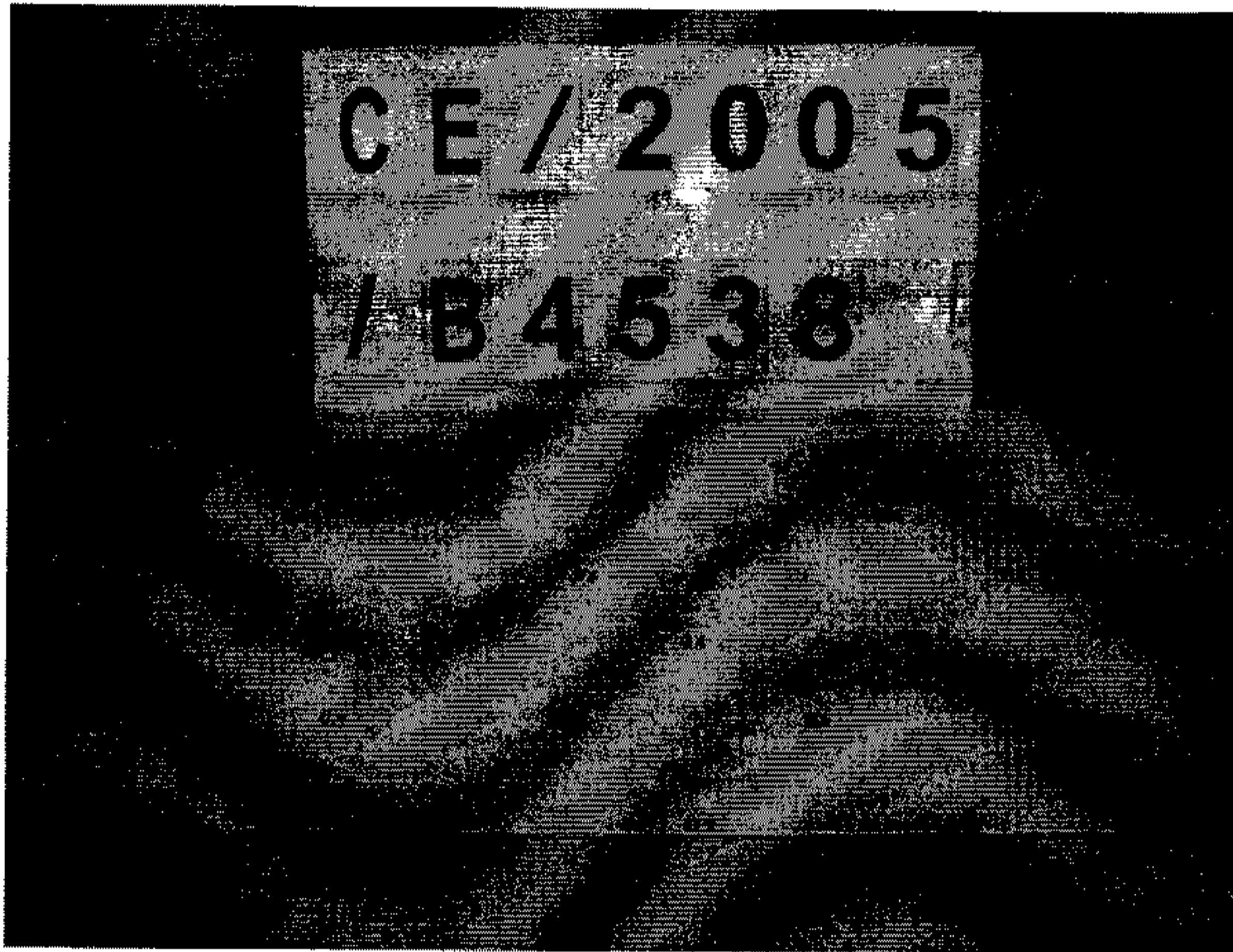
SIZE 124518



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**SIZE 124519**

SGS-CSTC Standards Technical Services Co. Ltd.  
Shenzhen Branch Laboratory

2/F, Oastar Building, Zhongkang Road, Shangmeilin, Shenzhen, China 518049  
中国·深圳·上梅林中康路奥士达大厦2层 邮编: 518049

t (86-755)83114358 f (86-755)83182782 www.cn.sgs.com  
t (86-755)83114358 f (86-755)83182782 e sgs.china@sgs.com

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