

SGS Testing Korea Co., Ltd.

#18-34, Sanbon-dong, Gunpo-city, Kyunggi-do, Korea 435-040
Tel : 031-4285-777, Fax : 031-427-2374/9, InterNet>http://www.sgslab.co.kr

Test Report

No. F690501/LF-CTS103646

Date : August 16, 2005

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HANWHA L&C CORPOATION
229, Kumho-ri, Buyong-myun, Cheongwon-kun,
Chungbuk, Korea

The Following merchandise was submitted and identified by the clients as :-

Type of Product : FCCL (HFLK)
SGS File No : G-49/2005-2954/4
Buyer :
Materials : Poly imide + Epoxy Adhesive + Cu Foil
Sample Receiving Date : Aug. 16, 2005
Test Performing Date : Aug. 16, 2005
Test Performed : SGS Testing Korea tested the sample which was selected by applicant with following result.
Test Results : For further detail, please refer to following page.

KHJ/ysh

SGS Testing Korea Co., Ltd.



Jason Han / Director

SGS Testing Korea Co., Ltd.

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Heavy Metal

Test Items	Unit	Test Method	MDL	Results
Cadmium (Cd)	mg/kg	USEPA 3050B, ICP-AES	0.5	n. d.
Lead (Pb)	mg/kg	USEPA 3050B, ICP-AES	5	n. d.
Mercury (Hg)	mg/kg	USEPA 3052, ICP-AES	2	n. d.
Hexavalent Chromium (Cr VI)	mg/kg	USEPA 3060A, UV-Vis	1	n. d.

Flame Retardants

Test Items	Unit	Test Method	MDL	Results
Polybrominated Biphenyls (PBBs)				
Bromobiphenyl	mg/kg	With reference to USEPA 3540C. Analysis was performed by GC/MS.	5	n. d.
Dibromobiphenyl	mg/kg		5	n. d.
Tribromobiphenyl	mg/kg		5	n. d.
Tetrabromobiphenyl	mg/kg		5	n. d.
Pentabromobiphenyl	mg/kg		5	n. d.
Hexabromobiphenyl	mg/kg		5	n. d.
Heptabromobiphenyl	mg/kg		5	n. d.
Octabromobiphenyl	mg/kg		5	n. d.
Nonabromobiphenyl	mg/kg		5	n. d.
Decabromobiphenyl	mg/kg		5	n. d.
Polybrominated Diphenyl Ethers (PBDEs)				
Bromodiphenyl ether	mg/kg	With reference to USEPA 3540C. Analysis was performed by GC/MS.	5	n. d.
Dibromodiphenyl ether	mg/kg		5	n. d.
Tribromodiphenyl ether	mg/kg		5	n. d.
Tetrabromodiphenyl ether	mg/kg		5	n. d.
Pentabromodiphenyl ether	mg/kg		5	n. d.
Hexabromodiphenyl ether	mg/kg		5	n. d.
Heptabromodiphenyl ether	mg/kg		5	n. d.
Octabromodiphenyl ether	mg/kg		5	n. d.
Nonabromodiphenyl ether	mg/kg		5	n. d.
Decabromodiphenyl ether	mg/kg		5	n. d.

Note : n. d. = Not detected

MDL = Method Detection Limit

***** End *****